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# Chemical Marketing Reporter

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NEWSPAPER SECOND CLASS POSTAGE

NOVEMBER 21, 1986

3

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#### INSIDE CMR

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**UCC-BHOPAL:** Carbide says it is confident it can block an Indian court's injunction barring it from carrying out its divestment program. [Page 3](#)

**GROWTH OUTLOOK:** Mon-Sanjo economist sees slow steady growth for the US economy to 1988. Major concern to chemicals is trade. [Page 5](#)

**EPA FEES:** US agency proposes a fee schedule of up to \$163,100 to recover the cost of registering new pesticides, but it is illegal. [Page 7](#)

**GOODYEAR ESCAPE:** The embattled company gets away from British financier Goldsmith, but has to pay him \$618.8 million to do it. [Page 9](#)

**CANADA SURVEY:** A survey for the Canadian petrochemical industry finds hostile sentiment and a desire for stricter regulation. [Page 5](#)

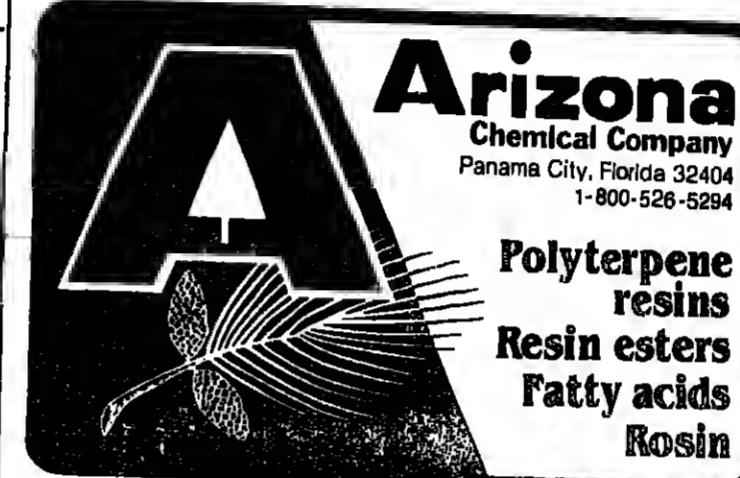
**CHEMO-PHOBIA:** FDA official says the public's fear of chemicals in foods is misplaced. The safety margin of food chemicals is cited. [Page 7](#)

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#### CHEMICAL MARKETING

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STYRENE:	Pick-up reflects better demand, downtime
PVC:	Demand is surging and production hikes
LINALOOL, LINALYL ACETATE	100% up

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CHEMICAL MARKETING REPORTER November 24, 1986

## Air Emissions Policy Defined

Environmental Protection Agency completed a seven-year effort last week by issuing final guidelines on the use of emissions trading, or the "bubble," to meet pollution reduction requirements under the Clean Air Act.

The agency's policy, first proposed in 1979, continues to authorize use of environmentally-sound bubbles in all areas of the country and is expected to be widely used by states and industry to save pollution-control costs while insuring continued progress toward clean air.

"The new guidelines represent a tough but fair policy," says Milton Russell, EPA's assistant administrator for policy, planning and evaluation. "The bubble offers needed flexibility, the ability to respond to changing circumstances and stronger incentives for

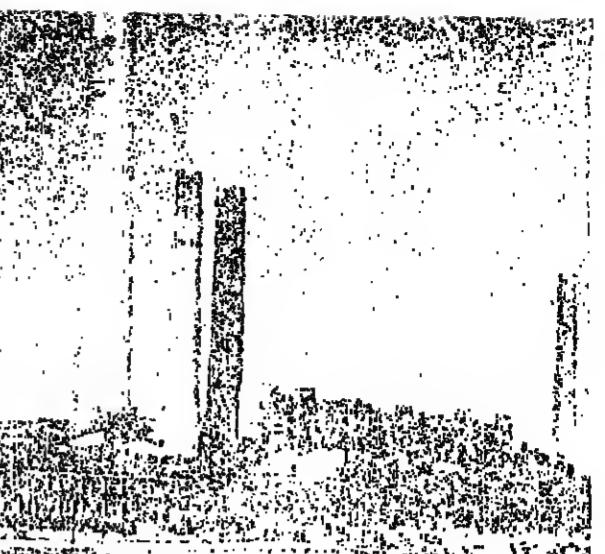
environmental progress."

He said bubbles can encourage innovative emissions control approaches, help reach small or dispersed sources that may be difficult to control directly and secure more reliable, less-polluting changes in industrial processes.

Mr. Russell said the revised emissions trading guidelines "confirm the principle that allowing states and regulated firms to secure equal or better emission reductions at less cost is an important way to help get

Continued on Page 14

**AIR EMISSIONS:** Target of new 'bubble' policy. The 'bubble' allows managers of oxidizing plants to treat stacks and vents as if they were enclosed in a giant bubble. Initial reaction from Capitol Hill and environmentalists was mostly negative last week.



## Carbide Appears Confident About Blocking Injunction

Union Carbide Corporation last week dismissed the possibility that the district court in Bhopal, India, would permanently bar the company from pursuing its recapitalization and asset divestment program.

On Monday (November 17), the court issued a temporary injunction blocking such activities, pending a hearing on the Indian government's request for a permanent injunction. The hearing is scheduled for Friday (November 20).

"We believe the judge will lift his order when he has had a chance to consider the recapitalization program and planned divestitures, which will significantly strengthen UCC's financial position," Carbide said in a statement last week.

A Carbide spokesman in Danbury, Conn., does not know what the company would do if forced to abandon it. "That's too unlikely a scenario to comment on," he said.

Recapitalization program involves the purchase by Carbide of \$2.5 billion in debt as part of its successful counteroffer to UCC Corporation's levered offer for the company earlier this year.

An American lawyer representing the Indian government said the company was placing interests of its debtors ahead of those of the victims of the Bhopal gas leak two days ago.

The government's bid to block Carbide's recapitalization and divestment programs is viewed as an attempt by Indian officials to pressure the company into increasing its previously-rejected out-of-court settlement

offer of \$350 million.

Carbide last week complained that the government is trying to prevent the company from defending itself against liability for the Bhopal disaster. "To attempt to require UCC now, as the price of defending itself, to be subject to an injunction that prevents it from improving profits, cash flow and net worth, makes a mockery of the due process of law," the company stated.

In an accompanying counterclaim filed in Bhopal court last week, Carbide sought to place liability for the accident on the central government and the State of Madhya Pradesh.

Among other things, Carbide argued that the government forced Carbide to manufacture methyl isocyanate at the Bhopal pesticide plant, was aware of the dangers inherent in MIC production, and restricted the parent company's collaboration with its Indian subsidiary in setting up and operating the plant.

The company also argued that the state legalized dwellings near the plant, knowing the dangers posed by the plant.

Carbide also cited a design transfer agreement between the parent company and its Indian subsidiary for the production of MIC-based pesticides which relieves the parent company of any liability for damages, injuries or deaths arising from the subsidiary's use of the designs. The agreement was approved by the central government.

Carbide also disclosed evidence last week pointing to the deliberate introduction of water into MIC storage tank 610, causing the deadly gas leak.

## President Signs Drug Law, But With 'Mixed Feelings'

Selling aside "mixed feelings," President Reagan has signed into law a measure allowing exports to foreign countries of drugs not yet approved for use in the U.S. provided they are legal in the other nations.

The new law allows US pharmaceutical companies to begin production of the drugs in the U.S. for sale overseas while waiting for FDA approval. The bill also allows the export of certain tropical diseases not yet approved in the U.S.

Gerald Moshinghoff, president of Pharmaceutical Manufacturers' Association, said the legislation "greatly strengthens the ability of the US pharmaceutical industry to compete in international markets... The regulation will create jobs in the U.S., stimulate capital investment here and spur exports."

He also said the new law comes as the industry "embarks on an exciting era of new product development, and will help the U.S. maintain its position as the world's leading

innovator and producer of pharmaceutical and biotechnology products."

Richard D. Golmyn, president of the Industrial Biotechnology Association, said the measure will "ensure America's competitive edge in biotechnology... while preserving the integrity of the administration's non-protectionist policies."

He said the legislation is particularly vital for the many small and mid-sized biotech companies that lack the economic resources to set up shop overseas.

"These companies have been forced to await FDA approval while foreign competitors established market dominance or licensed the technology pioneered by US firms," Mr. Godown noted.

President Reagan signed the bill November 14 saying: "On the one hand, I warmly endorse provisions of this legislation permitting the export of unapproved drugs and biologicals under certain conditions and repealing the Federal health planning authorities."

"On the other hand, I have serious reservations about the portion of the bill that would establish a Federal vaccine injury compensation program."

That portion known as the no-fault provi-

Continued on Page 20

VOLUME 230  
Number 21

# Chemical Marketing Reporter

NOVEMBER 24, 1986

DuPont Chief Says  
Building COG Costly

Capital spending projects in the US chemical industry "cost too much and take too long," according to the top executive of E.I. du Pont de Nemours & Co., who puts capital spending first on his list of challenges the industry will have to deal with successfully if it is to remain competitive worldwide.

Richard E. Heckert, DuPont chairman and chief executive officer, told members of the Chemical Manufacturers Association meeting in Chicago last week for the group's thirty-sixth annual chemical industry conference, that the high cost of R&D facilities, product development facilities and commercial plants have a major impact on the industry's competitive position.

"Time and again, I ask myself, why does it take us three years to build a plant to manufacture a product that we've been making for twenty years?" he says.

The DuPont chairman maintains improvements could be implemented today in the industry's project and construction process that have the potential to reduce the cost of new facilities by 15 to 20 percent.

"A 20 percent reduction can have a real impact," he says. "Instead of making a \$100 million capital investment over three years, you can build the same facility for \$80 million in two years, you can increase the internal rate of return of a typical project in our industry a full 5 percent."

Regarding the high construction costs, Mr. Heckert feels the chemical industry is not entirely blameless. He says the current engineering and construction industry in the US is dominated by practices "nurtured during the post-World War II era by corporate managers more interested in adding capacity than controlling costs."

Rapidly growing markets permitted producers to pass those costs through to consumers and the industry allowed and sometimes even forced high-cost practices to become standard by giving in to "unrealistic demands" of union labor rather than accept delays due to strikes, Mr. Heckert says.

But the industry had to pay for these policies when the inflationary spiral of the 1970's hit at the same time that foreign competitors entered the picture with products that met or exceeded those of US producers in terms of

cost and quality, "Yet we continue to sap our competitive strength with high project and construction costs," he says.

However, there may be a blueprint for turning the situation around. Mr. Heckert says the Bush administration's construction industry cost effectiveness project offers remedial actions that could vastly improve engineering, procurement and field construction processes.

Although the AFL-CIO building trades have not accepted the plan, engineers and construction contractors have, and with the emergence of open shop contractors as a dominant force in US major construction, free market forces are expected to bring labor costs back into line. "As you well know, this is happening," Mr. Heckert told the CMA members.

At the same time, he acknowledges that one group standing to gain the most from the change — owners and managers — have so far responded with only token actions. The DuPont executive says owners will have to "push for performance in this area," adding that "the bottom line on capital spending is that we'd better get serious about it or it will ultimately do us in."

He cites customer orientation, cost reduction.

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Richard E. Heckert

November 24, 1986 CHEMICAL MARKETING REPORTER 3



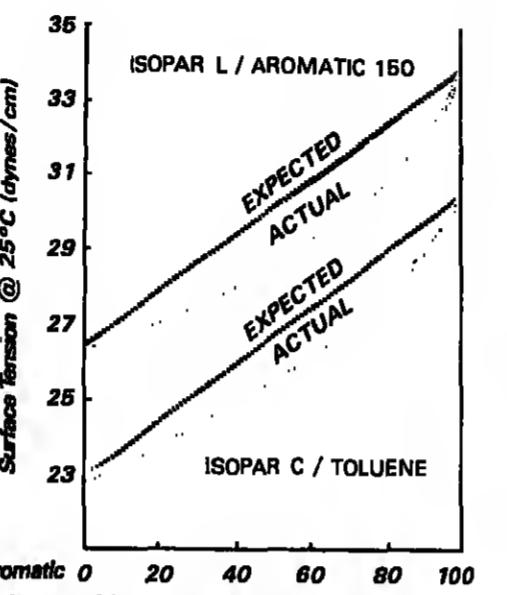
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Gary D. Corson, who has been named director of chemical purchases at Eastman Chemical Products, Inc.

## Pesticide Registration Could Cost \$163,100 Under Proposed Fee

Environmental Protection Agency is proposing to charge pesticide manufacturers fees of up to \$163,100 for the registration of their products—a plan strongly opposed by the chemical industry.

The agency says the fees would cover some of the costs now incurred by EPA in reviewing and registering pesticides. The recovered fees, expected to approach \$18 million annually, would be deposited in the general treasury.

Currently, fees for establishing tolerances or permissible pesticide residue levels are the only Federal costs paid by companies that register or license pesticides. These tolerance fees recover \$1 million to \$2 million per year, according to EPA.

Scott Ferguson, vice-president and general counsel of the National Agricultural Chemicals Association, says the industry will challenge the registration fees because it believes EPA lacks the authority to impose them.

EPA says it is proposing the fees under the Independent Offices Appropriation Act, which authorizes agencies to establish user fees.

"We have considerable reservations that EPA has authority under that law or any

other Federal law to impose these kinds of fees," says Mr. Ferguson.

As part of a compromise legislative agreement with environmentalists on amendments to the Federal Insecticide, Fungicide and Rodenticide Act, NACA supported a one-time fee of \$150,000 for the re-registration of older pesticides that are already on the market but have never been adequately tested for safety.

The FIFRA bill died in the final hours of the legislative session due to disagreements over other issues.

"I think the House and the Senate will have some interest in what EPA is proposing now," says Mr. Ferguson.

The proposed fee system is based on the average EPA costs of processing and reviewing certain registration applications: new pesticides, new registration of previously registered chemicals, new biochemical or microbial pesticides, experimental use permits to field test a pesticide chemical, and food additive tolerance permits.

Before a pesticide can be distributed for sale in the US, it must be registered with EPA under FIFRA. In order to do so, manufacturers are required to provide the agency with health and ecological data.

On the basis of a scientific review of the

Continued on Page 17

## Jordan Phosphate Backing?

The US Export-Import Bank is considering \$20 million in credit support for the Jordanian phosphate industry, a move which critics say would be a direct violation of a new congressional mandate.

Gary D. Myers, president of Fertilizer Institute, describes the timing of the loan's consideration as "more than pure coincidence," noting that Congress is not in session.

Approval of the \$20 million loan to the Jordan Phosphate Mining Company would contradict the Eximbank reauthorization bill passed by Congress last month, Mr. Myers says.

The measure bars the use of Eximbank funds to establish or expand production of another nation's export commodities if such products are in world surplus. If they compete directly with similar US products, or if such assistance would cause

substantial injury to US producers.

"Last month, Congress pointed to past Eximbank phosphate loans as particularly injurious to US producers, yet Ex-Im seems determined to challenge the Congress by considering this latest Jordanian request," says Mr. Myers.

Jordan is seeking the loan in order to purchase phosphate mining equipment. The request comes at a time of massive worldwide phosphate oversupply and a severely curtailed US phosphate industry. A United Nations/World Bank working group estimates current phosphate oversupply at 4 million tons.

Jordan annually mines approximately 9.3 million tons of phosphate rock, but consumes only 20,000 tons domestically. The remaining tonnage competes directly with US phosphate rock exports.

## Surplus Could Be Detrimental Official Tells Manufacturers

A top Reagan Administration trade official says it may not be desirable—or possible—for the US to run a trade surplus. "It's clear you can't continue to run a \$170 billion trade deficit," Deputy US Trade Representative Michael Smith told the National Association of Manufacturers Thursday.

"But I'm not sure that it's right to say the US must have a trade surplus, aside from whether it is obtainable in today's world," he added.

Mr. Smith suggested that a large US trade surplus "would be just as much trouble" for the world economy as its huge deficit is today and he questioned whether the world could absorb so many American exports.

He said the administration's plans for trade legislation next year "have not been fully developed but are under discussion."

Mr. Smith stressed that while the administration would like renewed authority to negotiate a new international trade agreement as part of a trade bill, it will not accept legislation if it becomes a Christmas tree.

US Trade Representative "Clayton Yeutter welcomes the authority to negotiate a new world trade agreement but we're not going to sell our soul," Mr. Smith remarked.

The regulations continue the process, initiated last November in EPA's chemical emergency preparedness program interim guidance, to foster preparedness against chemical accidents at the local level.

"We don't want it with all sorts of conditions that would be counterproductive to the goals" of liberalizing world trade.

US negotiating authority expires at the end of 1987 and most trade experts agree it would help the US's bargaining power. If it had new long-term authority going into the talks, which are expected to last at least four years,

The purpose of the talks is to update and revise world trading rules set out in the General Agreement on Tariffs and Trade (GATT), to reduce protectionism, and to expand world markets.

Although the chemical industry is one of the few US businesses still providing a surplus to the nation's overall trade deficit, the surplus has been declining annually.

The chemical trade balance has dropped 37 percent since 1980, when the US exported \$12.2 billion more in chemical products than it imported. The Commerce Department estimates the chemical trade surplus will diminish again this year.

Ron Lang, president of the Synthetic Organic Chemical Manufacturers Association, recently said he believes the upcoming round of talks, expected to begin in Geneva, Switzerland in January, will be the most important ever for the chemical industry, possibly affecting its profitability and growth.

In litigation filed early in the week, Gillette charged that Ronald G. Perelman, Revlon's chairman, illegally informed investors in the market of his plans to attempt an acquisition of Gillette.

Mr. Perelman replied that the charges are

## FDA Man Decries Fear Of Chemicals

US consumers worry too much about the chemicals used in their food and should instead be more concerned about the growing problem of disease-causing microbes in the food supply, says the government's top food safety official.

"There is in this country something that can only be called 'chemo-phobia,'" says Sanford A. Miller, director of Food & Drug Administration's Center for Food Safety and Applied Nutrition. "People are simply afraid of anything with the title chemical bestowed on it," he says.

Mr. Sanford says a recent FDA study of the most widely-used and best-tested food additives showed that the allowed levels for most of them had safety margins far in excess of the minimum necessary to protect the public. Yet, he adds, convincing the public of that is extremely difficult.

While the agency has poured a great deal of resources over the last 30 years into evaluating the safety of chemicals and in determining exposure levels of chemical contaminants in foods, it has not paid adequate attention to monitoring microbiological hazards, says Mr. Sanford.

"What has become apparent is that the hazards associated with chemicals in foods are very low—in large measure because of the actions we've taken. What we're now observing is an increasing number of illnesses associated with food-borne disease, some of which are associated with an increasing laxity in sanitation," Mr. Sanford notes.

"The conclusion we came to," he says, "is that we have to pay a great deal more attention to microbiological hazards."

Mr. Sanford says FDA recently reviewed the safety data on 180 of the most heavily-used and best-tested food chemicals and found that the safety margin for more than 90 percent of the compounds was a thousand-fold or more and, on the average, was ten thousand-fold.

"This is a tremendous margin of safety, particularly when you consider that current exposure for humans is very low and the toxicity of these things is not very high," he says.

Public concern about food additives, preservatives and pesticides is largely misplaced, according to the FDA official. "Most people don't realize how safe the food supply is from a chemical point of view," says Mr. Sanford.

## Drexel Financing Is Big Question In Revlon Bid

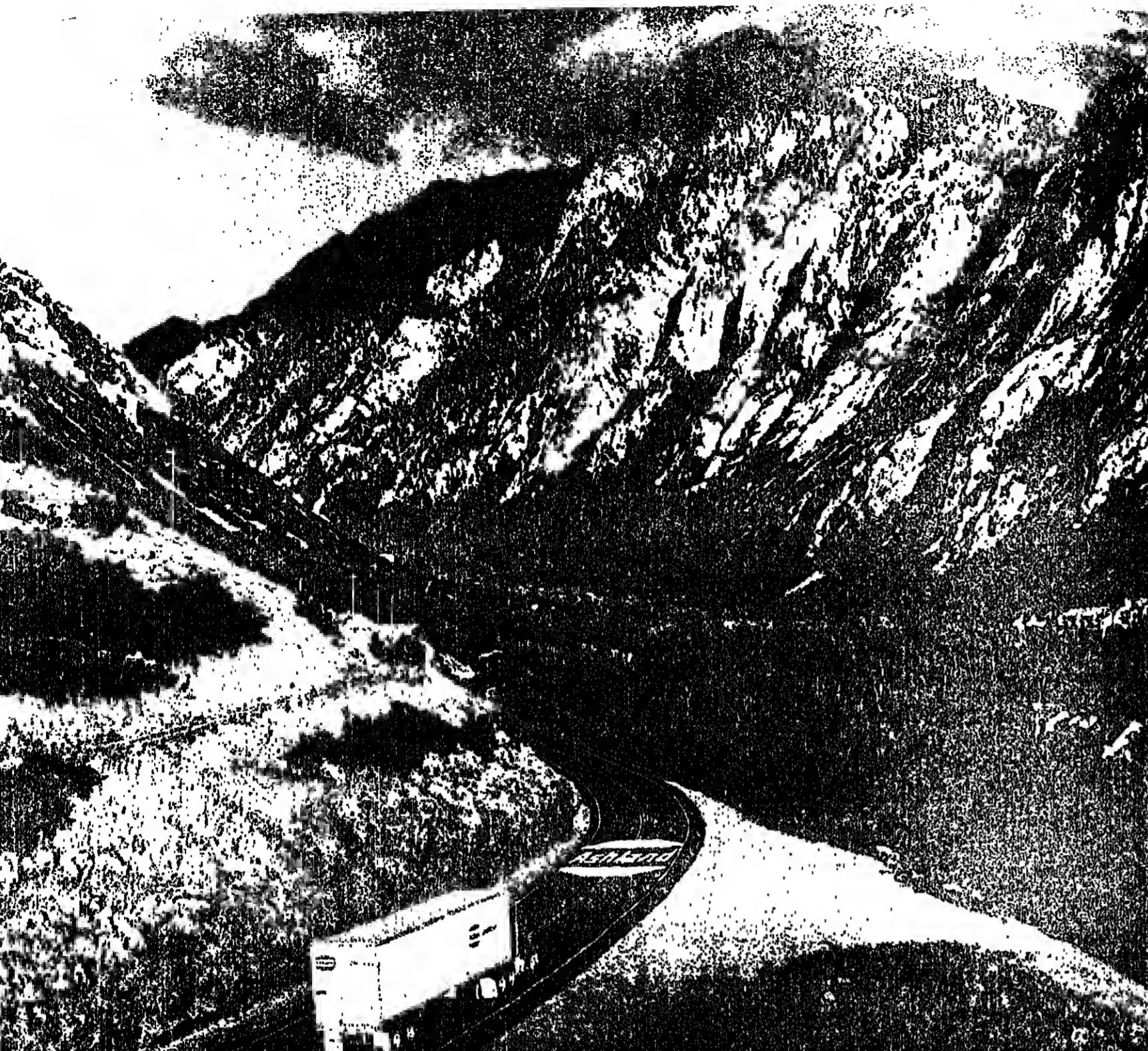
Drexel Burnham Lambert Inc. has consistently demonstrated its ability to raise high-cost financing for mergers, but because of the storm raging around the Ivan Boesky insider trading case, the stock market last week registered a little bit of doubt about Drexel's ability to finance Revlon Inc.'s attempted takeover of Gillette Company.

Late last week Revlon said that Drexel Burnham had reaffirmed its commitment and ability to finance the \$4.12 billion attempted takeover of the Boston, Mass.-based manufacturer of razor blades, toiletries and other consumer products.

A day earlier, when it was disclosed that Drexel is the subject of investigations by Securities & Exchange Commission relative to the Boesky and similar dealings, the price of Gillette's stock fell more than \$7 per share, evidencing doubt that the merger would be consummated.

In litigation filed early in the week, Gillette charged that Ronald G. Perelman, Revlon's chairman, illegally informed investors in the market of his plans to attempt an acquisition of Gillette.

Mr. Perelman replied that the charges are



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## News Capsule

### Immunex Pilot Plant

Immunex Corporation plans to build a \$4 million pilot plant to produce pharmaceuticals for use in FDA clinical trials and expanded research. The development facility will be funded and owned by Immunex and Eastman Kodak Company joined this year to develop products based on human immune system modulators for possible application in treatment of cancer, arthritis and immune system disorders.

### EPA Slates Reviews

Environmental Protection Agency's integrated testing committee has named four chemicals for priority review within the next year. They are: C.I. Disperse Blue 3B, isopropanol, methyl ethyl ketoxine, and methyl (tert-butyl) ether. Trinitro phosphate was also designated for review within 12 months. It was cited for review last year, but not within the one-year time limit.

### Biosay Ends Talks

Biosay Systems Corporation has terminated negotiations to sell its toxicology facility in Decatur, Ill. The company previously announced that it expected to enter into a definitive agreement to sell the facility by mid-December. Biosay says it is not presently negotiating with any parties for the sale of the facility.

### Degussa Opens Center

Degussa Corporation has officially opened its new applied research and technical service facility in Allendale, N.J. Degussa actually started operations there a year ago, and had been completing construction modifications and equipment installation since then. Functions performed at the facility include customer formulations and product testing, quality control and technical support and safety advice for products made by the company's chemicals and pigments divisions.

### Carbide Unit Moves

Union Transformer Services Inc., a subsidiary of Union Carbide Corporation, has moved its corporate headquarters from Dublin, Ohio, to Charlotte, N.C. The company uses proprietary technology to recondition PCB-containing transformers to non-PCB status.

### CPC Plans Sale

CPC International Inc. is offering its European corn oil milling business for sale. The business currently accounts for about \$1 billion in net sales. Sale of the unit is part of the company's restructuring strategy to seek future growth mainly in its US and worldwide grocery products businesses.

### Sun, Dainippon Agree

Sun Chemical Corporation and Dainippon Ink & Chemicals, Inc. have signed a definitive agreement for the sale of Sun's graphic arts materials group to Dainippon for approximately \$550 million. Execution of the agreement with Dainippon has been a pre-condition to Sun's proposed merger with Chromaloy Corporation. The merger is subject to a definitive merger agreement and approval of shareholders.

### Giba-Geigy Spill

A Chesa-Geigy plant in Switzerland recently emitted a phenol-laden cloud into the atmosphere last week, heightening public concern about the chemical industry. The Chesa-Geigy plant is near the Swiss warehouse in Schwerzenbach, which was responsible for the release of two tons of chemicals into the Rhine River two weeks ago.

### UOP Licenses MTBE Unit

UOP Inc., a unit of Allied-Signal Inc., granted a license to Compania Estatal de Petroleos de Spain for the construction of a unit to produce 45,000 metric tons a year of MTBE at CEPSA's refinery near Algeciras. The MTBE technology was developed by Huelva AG of Germany.



Mario Concha, who has been named vice-president, international, for Occidental Chemical Corporation's overseas operations. The appointment follows OxyChem's recent acquisition of Diamond Shamrock Chemicals Company.

## Yves St. Laurent, Of France, Buys Charles of The Ritz

Squibb Corporation, the Princeton, N.J.-based maker of pharmaceuticals and consumer products, which last summer put its Charles of The Ritz fragrance facility up for sale, settled on a buyer last week—Yves St. Laurent, the Paris clothing design firm.

St. Laurent, with the help of an Italian investor, Carlo DeBenedetti, was able to outbid Avon Products Corporation and several others.

Preparation for the St. Laurent bid was made last month when Cerus SA, an investment firm in France, acquired a 25 percent stake in Saint Laurent, a move that provided St. Laurent with the financial muscle needed to compete against the world's largest cosmetics company.

Cerus is controlled by Mr. DeBenedetti, the chairman of Ing C. Olivetti & Co.

The acquisition of Charles of The Ritz will be made by a new company to be established by Cerus and St. Laurent, which will be capitalized of \$175 million, with \$25 million provided by Mr. DeBenedetti.

## Alcoa to Acquire Aerospace Firm In Los Angeles

Aluminum Company of America, Pittsburgh, Pa., has agreed to acquire TRE Corporation, Los Angeles, a producer of light-weight metallic and non-metallic structures for aerospace and defense applications and of home building products.

Alcoa will make a cash tender offer for all common shares of TRE for an aggregate of \$46.38 for each common share and related TRE obligations. Dealer/manager for the offer, which has been approved by TRE's directors, will be First Boston Corporation.

The acquisition would give Alcoa, one of the country's three largest producers of aluminum, additional support for its strategy to become a worldwide supplier of engineered materials and systems.

TRE's strengths are said to be in technology for manufacturing advanced aerospace, marine and defense structures. These have been consistently identified as priority areas for Alcoa's growth strategy, stated Charles W. Parry, Alcoa's chairman and chief executive officer.

## Goodyear Buys Out Its Hostile Pursuer

Goodyear Tire & Rubber Company, Cleveland, Ohio, has bought out its hostile pursuer, the international financier Sir James Goldsmith, at a handsome profit for Sir James, and has also scheduled a massive buyback of its shares that will give its own stockholders a chance to benefit also.

Together, the two stock purchases will total nearly 50 percent of the company's outstanding shares, but the numbers, as they have for other companies, should get Goodyear home free.

The big buyback from the public is similar to merger defenses successfully employed by Union Carbide Corporation, Phillips Petroleum Company and Unocal Corporation, while the buyback from Sir James is the "greenmail" route taken several years ago by Ferro Corporation and Pennwalt Corporation against hostile pursuers.

Goodyear agreed to pay Sir James \$49.50 per share for his 11.5 percent stake in the company. This total of \$618.8 million will give Sir James a tidy profit in the \$95 million range.

On the public side, Goodyear will make a tender offer for 40 million shares at \$50 a share, or a total of \$2 billion.

The settlement with Sir James ends a

merger contest that was rapidly expanding into a social and political issue, as did the acquisition of Marathon Oil by United States Steel Corporation (now USX), about three years ago. In this case, the resentment was aggravated by the fact that Sir James is a European.

In Congress, several lawmakers criticized the Reagan Administration for its hands-off policy and said Congress must take away some of the weapons corporate raiders use when firms like Goodyear face a hostile takeover bid.

At a House judiciary subcommittee hearing last week on hostile takeovers and their impact on competitiveness, Goodyear chairman Robert Mercer endorsed Federal laws to clamp down on hostile takeovers.

"The laws have to be changed to eliminate this approach to American industry," he said.

"The administration's 'hands-off' approach doesn't make any sense," said Sen. Howard Metzenbaum (D-Ohio). "There are specific steps Congress can take early next year."

"This committee hearing is the first step in asking you for protection from the free capital market," Mr. Goldsmith told the panel. "The appropriate response to competition is

Continued on Page 24

## Dioxin Threat Overstated?

American and Italian researchers say they have found that dioxin caused no apparent serious harm to children exposed to the toxic chemical by an industrial accident.

The scientists report that among 1,500 youngsters examined, those exposed to the highest concentrations of the dioxin compound TCDD had slight abnormalities in liver function and fat metabolism, but these disappeared over time.

The children were between the ages of six to ten when several hundred grams of dioxin were released into the air from a plant near Seveso, Italy, in July 1976. Some suffered chloracne, a skin rash, at the time.

"While we can say that in children of Seveso the acute phase of intoxication by TCDD passed with no appreciable consequences, it remains to be established over a longer period of time whether there will

be a higher incidence of tumors," the scientists wrote in the *Journal of the American Medical Association*.

Since the incident, 30,000 people living downwind of the plant have been given regular medical examinations. A cancer registry has been set up to monitor tumor development.

Dioxin is a byproduct of manufacturing processes that create herbicides, pesticides and other chemicals. On the basis of animal studies, scientists have concluded the substance can cause cancer in humans, particularly a form that attacks muscle, fat, nerves or connective tissue. Most other dioxin studies have concentrated on adults.

The study was conducted by Dr. Paolo Moretti and colleagues at the University of Milan in Italy, and others at the University of Pennsylvania and American University in the US.

## Greenwell Montagu Boosts Rating on Montedison Stock

Greenwell Montagu Securities, of London and New York, has improved its rating on the stock of Montedison SpA, of Italy, from hold to either buy or hold, and has lowered its investment opinion on BOC Group (formerly British Oxygen Company) Hoechst AG, Laporte Industries Ltd., Rhone Poulenc SA and Yorkshire Chemicals PLC.

Improved fundamentals of Montedison's share, relating to the company's strong market positions in its broad line of chemicals, consumer products and consumer services, will now be given greater recognition by the market, stated Start Wamsley, David Ingles and Judy Shaw.

This recognition has been delayed recently by the sale of shares to take profit on a rights issue and market speculation about Montedison's now successful campaign to acquire Fondiaria against the opposition of much of Italy's financial establishment, the analysts noted.

BOC's shares have been marked down from hold or buy to simply hold because the shares have run up to a price level that will not be easily improved upon. Hoechst's market value has been marked down from hold or buy to simply hold because the shares have run up to a price level that will not be easily improved upon. Hoechst's market

outlook actually has improved with plans for the Cetanease merger, but the possibility of another rights issue could restrain the share price for a while, the analysts said.

Laporte, previously rated hold, has been marked down to hold or sell because the price has risen significantly in response to the purchase by Solvay of an interest in the company, and it is now likely that profit taking will set in, the Greenwell Montagu analysts commented.

Rhone Poulenc and Yorkshire both have been lowered from hold to hold or sell. On the French company, the analysts are skeptical about the planned acquisition of Union Carbide Corporation's agricultural chemical operations, and they also want to see how well the new management works out before making a commitment. Yorkshire is rated satisfactory on fundamental basis, but the shares have had a strong run-up and the next move is likely to be profit taking. It is commented.

The Greenwell Montagu analysts have reaffirmed previous buy recommendations on BASF AG, Bayer AG, Cookson Company and Imperial Industries, Ltd. Rated sell are Fosec Minsep and L'Air Liquide SA.

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## OILS, FATS & WAXES

### Cottonseed Oil Expected To Tighten This Crop Year

Production of cottonseed oil in the US is expected to be off by 25 percent this year, according to Department of Agriculture figures. USDA attributes this low forecast to a 1986 government program to reduce cotton acreage in the US. People in the industry, meanwhile, feel that the cotton oil market will be additionally tightened by competition for cottonseed from the dairy feed industry.

The Foreign Agricultural Service (FAS) forecast for US cotton oil production stands at 833,000 metric tons (MT) for this year, down 25 percent from the preliminary estimate for last year's crop of 484,000 MT. The basis for the figures is the success of the 1986 Upland Cotton Acreage Reduction Program, according to FAS. The program called upon cotton farmers to cut their planted acreage by 25 percent, in an effort to avoid repeating the previous year's surplus of fat cotton, used in textile applications, according to USDA sources. Sources note that the program met with nearly 100 percent participation by the nation's cotton farmers.

The resultant reduction in cottonseed is expected to be aggravated by competition from dairy farmers using seed for feed. This has been a growing problem for cotton oil producers, who are finding it increasingly difficult to sell to the cattle industry, sources say. FAS is calling for a reduction in the seed acreage going to cattle feed this year, from last year's estimate of 1.7 million tons to the current forecast of 1.5 million tons. Despite this reduction, the percentage of seed used for feed is expected to climb from last year's already higher-than-usual 35 percent. "My guess is it will be closer to 45 percent," says an industry source.

**LESS OIL AVAILABLE**  
Consequently, the amount of oil available this year is expected to be lower than the crop reduction would indicate. "The oil reduction will be more like 35 to 40 percent," says a producer, who goes on to say that "the government figures don't take into account that the seed yield is down."

The tight availability of oil will not be in conflict with volume of demand, which is currently quite low, sources say. Buying had been strong a few weeks ago, but it eased off when the price of competing oils came down. "The market is very, very quiet," says a source, who says that buyers and sellers are currently about 1 cent apart. Another source predicts that the cotton oil price will come up some more in the near future. "Cotton oil will

plies are said to be limited at the moment, with US fisheries out of production season.

The domestic market is relatively strong, says an industry source, who cites growing interest in the health benefits of fish oil as a primary reason. Export business is said to be slow, as shipping has just been completed on previous orders to Europe.

#### VEGETABLE OILS

**SAFFLOWER SEED OIL** — The extent of the damage to the safflowerseed crop has become clearer, says a source, who estimates that more than 70 percent of the crop in the Montana area has sprouted. This premature sprouting was due to heavy rains earlier in the season, and has resulted in suppliers being reluctant to put their material on the market, in order to protect their low supplies.

While sprouting does not necessarily render the seed unusable, it does require that the seed be processed to a greater degree, say an industry source. Some buyers have complained of darker oil, a typical result of the kind of damage experienced by this crop. Paint and varnish producers need the oil to be light in color so as not to conflict with the pigments in their formulations.

At this point, the majority of the crop oil has been committed, a source says, with most of the free oil now being produced by damaged seed. "Most of this oil (from sprouted seed) will have to be mixed with good oil," the source says. Since most buyers' near term needs have been met, they are said to be staying away from the market at present. The price for non-break oil in tanks in NY is currently quoted at 50¢ per pound, and edible oil in drums is priced between 78¢ and 80¢ per pound, delivered in NY.

**SOYBEAN OIL** — Soy oil pricing has been level, as demand is beginning to slack off. While shipments of oil are said to be steady at the moment, as past sales are filled, new orders are hard to come by, according to an industry source. "Without new orders to stimulate the market, things are very slow," says a source.

#### FRIDAY SPOT PRICES

MARKET CLOSE NOV. 21, 1986

##### CRUDE VEGETABLE OILS

Coco oil, NY	lb. .214
Coco oil, Pacific	lb. .20
Coco oil, Midwest	lb. .20
Coco oil, Valley	lb. .17½
Linseed oil, Minnesota	lb. .28
Palm oil, NY	lb. .18
Palm oil, Southeast (restricted)	lb. .28
Soybean oil, Decatur	lb. .1418

##### REFD. VEGETABLE OILS

Coco oil, 1/2, NY	lb. .26
Coco oil, jumbo tanks, NY	ton \$2615
Palm oil, jumbo tanks, NY	ton \$24
Soybean oil, jumbo tanks, NY	ton \$37½

##### OILMEALS

Coco meal, 14% bulk, Memphis	ton \$180
Lined, processed, 34% bulk, Fargo	ton \$108
Palm, NY, bulk, SE, Alabama	ton \$120
Soybean, unrefined, 44% bulk, Decatur	ton \$151.50

##### FATS & GREASES

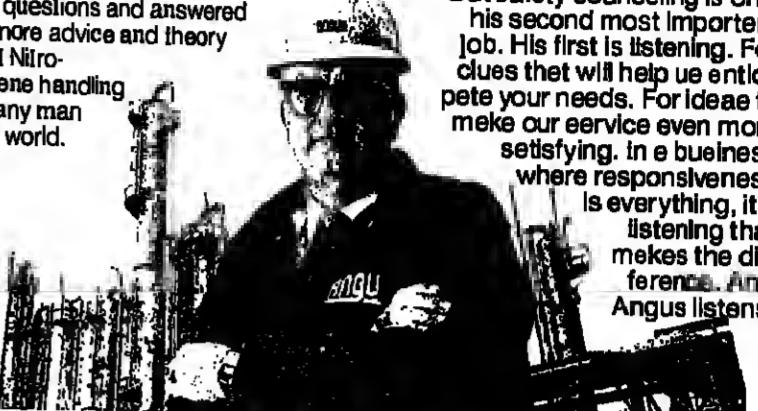
Grease, white, choice, tanks, div'd., NY	lb. .1044
Grease, yellow maximum 10%, ffa tanks	lb. .1044
Lard, bacon, bulk tanks, div'd., Chicago	lb. .1214
Lard, bacon, fancy, tanks, div'd., NY	lb. .1214
Tallow, bacon, bacon, bacon, div'd., NY	lb. .12

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## PET Market Seen Rising To \$2.2 Billion

With a 5 to 6 percent annual growth rate, the polyethylene terephthalate film market, now estimated at \$1.8 billion, will increase to \$2.2 billion by 1990, according to Andrew Eldib, president of Eldib Engineering & Research, Inc., Berkeley Heights, N.J.

Imports make up an estimated 10 to 15 percent of US PET film consumption. Since 1984 Japanese and Korean PET film makers have increased their market shares, while French and English exporters have lost ground, according to a study on the US PET film industry by Eldib.

Switzerland is the only European competitor to increase its share of the US PET film market. In many cases consumers reported that they could get imported film cheaper and better in quality than domestic film, Dr. Eldib says.

Dr. Eldib believes that Korean PET film makers will claim a larger and larger part of the pie as their production capacity grows. In spite of recent currency adjustments, producers from Japan will keep their prices competitive in order not to lose market share. He expects PET film imports to increase with Japanese producers in the foreground of the market.

To counter the effects of the strong yen, Japanese PET film makers are scrambling to team up with US end-users in joint ventures to convert PET film into electronic products, Eldib notes.

Several Japanese makers have formed technology agreements with California-based companies in mutual gain. The US companies benefit from the momentum of Japanese global economic expansion, and Japanese companies stem the effects of trade imbalances and the devaluation of the

dollar, Eldib points out.

While the packaging market is not yet as large as the market for magnetic recording media, it has tremendous growth potential because of the widespread consumer use of audio cassettes. Companies that make PET film for flexible packaging are moving into more advanced applications, such as flexible printed circuits.

The growth of PET film's market in industries ensures the already growing film demand. The 7 major end-users covered in the Eldib study have good potential and can make use of the strength, durability, dimensional stability, chemical inertness, and clarity that film offers.

## AROMATIC ORGANICS

### Benzene Firms on Spot Market; Contracts Are Poised to Follow

The spot benzene market firmed up substantially last week, prompting two producers to raise contract pricing for December, with others expected to follow suit.

The spot market rose steadily to a 92-cent-per-gallon level late in the week. The previous week, spot benzene was quoted at 87 cents per gallon, equal to the predominant industry-wide contract level.

Sun Company Inc. increased its contract price by 4 cents per gallon to 92 cents per gallon early last week from a level of 88 cents per gallon. Exxon boosted its contract price 5 cents per gallon on Friday to 92 cents.

Last Friday, Standard Oil Chemical Company raised contract prices 5 cents to 95 cents per gallon. Shell Chemical Company, another major producer, has not announced yet.

It is pointed out that both Exxon and Shell have experienced some shortness of supply in the quarter, and that this has contributed to the upward pressure on the market. Exxon has experienced operational difficulties related to a hydrocracker fire several weeks ago. One source estimates that the company has been buying 10,000 barrels of benzene per month. Shell is said to be borrowing material on a regular basis in order to meet commitments.

#### SHELL CANADA OUTAGE

SHELL CANADA recently lost about twelve days of benzene production at Sarnia, Alberta, due to a catalytic reformer problem. The company says that it was compelled to shut its styrene plant for a week, but that it was able to meet all its contract commitments.

Petro Canada Ltd. in Montreal was down for a considerable part of October, and is not expected to be a factor again in the merchant market well into next year.

With these production shortages and strong derivatives demand, the benzene market is described by industry sources as fairly tight. Styrene producers all are running full blast. They need the benzene, are able to take through the higher pricing, and are taking as much as they can get their hands on," says a trader.

One industry participant comments that "Styrene producers have not been opposing benzene increases, and acrylene buyers have not been pulling up any opposition (either)" during the recent months' upward spiral.

Assessing the styrene market in light of the imminent December 1 upturn in the benzene contracts, one acrylene producer observes that "the market appears to be tight from the buying side... benzene shipments are dragging."

"There are a lot of TVA's (temporary voluntary allowances) out there" that can be removed on short notice, he observes, and producers "are waiting in the weeds to see if there's any groundswell" on pricing.

In less than three months' time, spot benzene pricing has risen 15 cents per gallon, while acrylene contracts have risen approximately 5 cents per pound. While there has been some strength in crude oil and gasoline prices during this period, sources say, the benzene market has firmed beyond simply reflecting these prices.

Industry players remark that, while the US market is lighter than the world market as a whole, the European market has been fairly strong as well, and benzene exports to the US have not been heavy.

BHT — PMC Specialties Group, Inc. announced this month that it will be raising list pricing on butylated hydroxytoluene by 5¢ per pound, effective January 1.

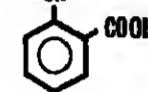
Spot paraxylene pricing was quoted at 16½¢ per pound, unchanged from the week before. An industry source says that this market has been steady to slightly weak in recent weeks, primarily on account of downward pressure from the para-xylene sector.

A spot xylene price of 78½¢ per gallon

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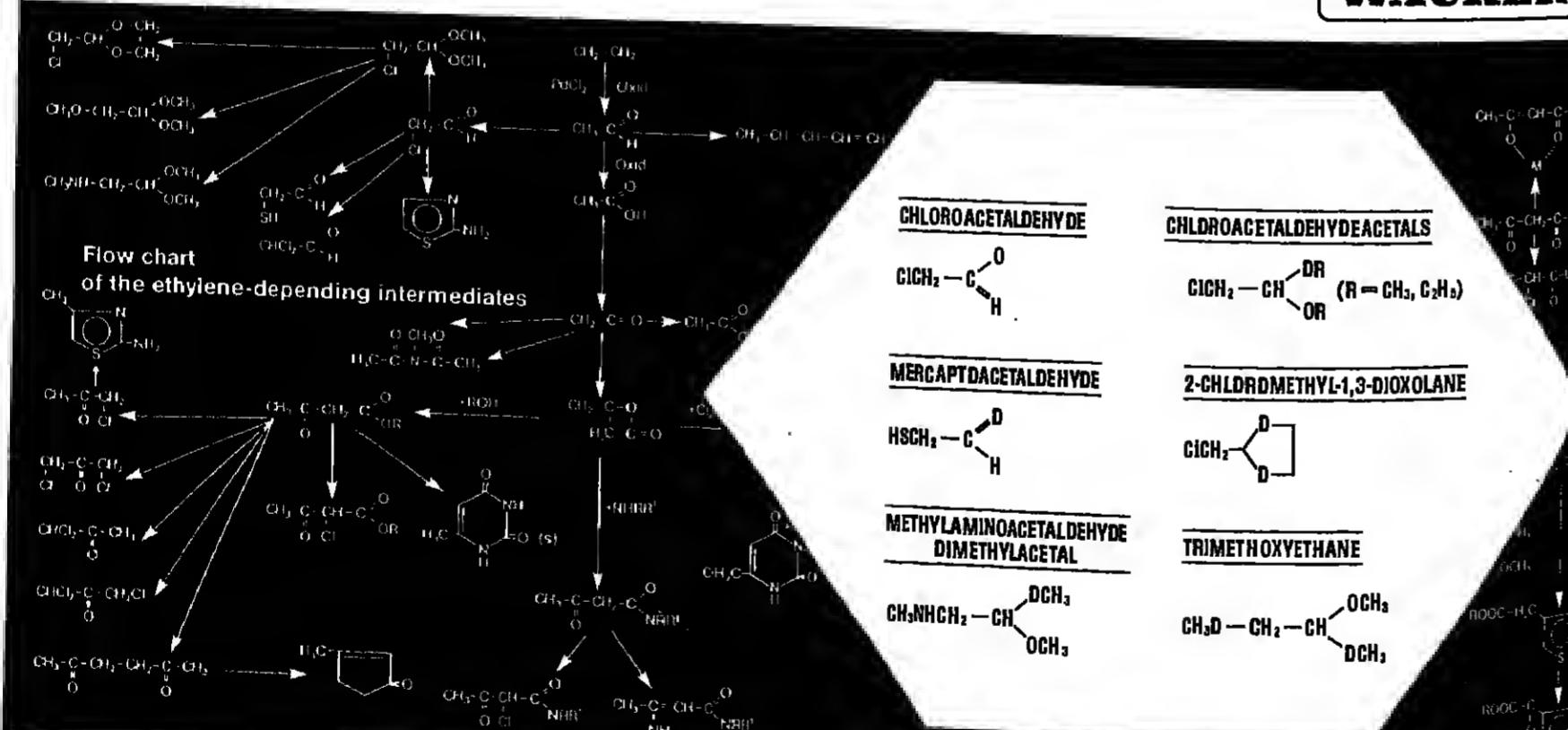
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### Air Emissions Policy

Continued from Page 3  
interim environmental program of Clean Air Act, especially in areas where most large plants are well controlled."

Initial reaction from Capitol Hill environmentalists, however, was mostly negative.

A staff counsel to the House Energy and Commerce subcommittee on health and environment said the regulations will increase compliance with Clean Air Act standards in areas that still fail to meet the standard.

"It pretty much guarantees the quo," said the counsel, noting that 10 million people live in metropolitan areas such as New York, Houston, Los Angeles, Pittsburgh and Denver.

David Doniger, senior attorney for Natural Resources Defense Council, said policy will result in "a give-and-take... Sources that have unanticipated reduction resources ought to be allowed over to the public. Instead they play shell game, and the air stays unclean."

The bubble allows managers of a plant to treat all their stacks as though they are enclosed by a pipe and control less where control is needed in exchange for extra compensation reductions where control costs relatively low, so long as equal or better results are achieved at the top of stack.

Because it often costs more to remove a pound of the same pollutant from one stack as from another on the block, such bubbles can save several dollars per transaction over the doing traditional uniform requirements the same or better environmental results.

"This new policy strengthens not only EPA's past efforts to use economics to create environmental progress," McElroy said. "Use of bubbles was already established under previous EPA policies back to 1979 and has been estimated by industry to save the economy hundreds of millions of dollars. Similar approaches are making important contributions to other phase out lead in gasoline, reduce asbestos and secure efficient fundations from various sources under the Water Act."

EPA's first bubble policy aims to help the agency address expanding responsibilities and decreasing financial returns. A 1982 interim Emissions Policy enlarged that early effort to regulate the bubble with the incentive-based approach and streamlining approval requirements.

The new policy tightens requirements for existing-source bubbles, banning new bubble rules, which allow states to require individual bubbles without case-by-case review. Among other steps, the policy provides for more regular EPA oversight of rules.

It also requires bubbles to all avoid produce any hazardous or potentially hazardous emissions, meet rigorous accounting designed to prevent hidden emissions increases and publicly state all changes (as well as permissible emissions limits) as well as permissible emissions limits their ambient effects will be characterized.

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CHEMICAL MARKETING REPORTER

November 24, 1986



## ALIPHATIC ORGANICS

### Acetic and VAM Prices Rise As a Tight Market Persists

Extreme tightness in the acetic acid and vinyl acetate monomer markets have enabled producers of the two aliphatic chemicals to push through higher prices in the fourth quarter. In many accounts, acetic acid sellers succeeded in pushing a 1-cent-per-pound increase through, while VAM makers hiked prices 2 cents per pound.

"We've been in 'sales control' for the past two months," one acetic acid producer says. He describes as limiting purchases to a regular total which forces the company to turn away larger-than-usual orders.

The acetic acid market has been running at over 90 percent of capacity all year, sources say, but has grown extremely tight in recent weeks following turnaround taken by Celanese at Clear Lake, Tex., and USI at Deer Park, Tex.

The two facilities, which have a combined acetic acid capacity of 1.84 billion pounds, were down for three weeks and six weeks, respectively. The USI facility returned to service last week, the company says, after work was completed on the syngas unit in Deer Park.

As a result of this supply tightness, producers were largely successful in passing through the 1-cent acetic acid increase. Both the acetic acid and vinyl acetate monomer increases "went through fairly cleanly," one producer says.

Another seller says the increase was "fairly successful," save for those customers with protective clauses written into their contracts. This seller says the market price for scetic acid now stands at 17 cents to 18 cents per pound for mid-sized customers.

#### OPERATIONAL PROBLEMS CITED

The market tightness for scetic acid was partly caused by "operational problems" at several plants, one producer says, and inventories fell to uncomfortable levels. He says the industry started to catch up until the two plant turnarounds again stretched the supply chain.

Demand for acetic acid this year has been described as steady if not spectacular. Including exports, US consumption is expected to reach 3.2 billion pounds this year, while capacity stands at 3.7 billion pounds. The long-term forecast calls for demand to grow at under 2 percent annually.

Despite these modest demand projections, the market is expected to remain tight through the middle of next year. The acetic acid unit owned by Sterling Chemical in Texas City (the material is marketed by BP) is expected to take a short turnaround next month, and is then scheduled for a four-to-six-week shutdown in the second quarter of 1987. Celanese will take another three weeks of downtime at Clear Lake in March to finish the maintenance work started this Fall.

Two producers, Celanese and Sterling, have the ability to expand their acetic acid capacities, but neither company is planning to do so in the near future. Celanese could add 180 million pounds to its Clear Lake total and Sterling could expand by 110 million pounds at Texas City, but since growth is forecast at 1.5 percent a year or less, producers say current insipiate, if running smoothly, is sufficient.

In addition to hiking prices for domestic customers, sources say the export price of acetic acid has risen 1 cent a pound as well. Exports are expected to grow from 237 million pounds in 1985 to 275 million pounds next year.

Further ahead, new capacity overseas is expected to reduce US export shipments. At the moment though, the snug domestic supply-demand balance has reduced the availability of acetic acid for overseas shipment.

The acetic acid price firming is in sharp contrast to the price trends of the acidic's two main raw materials, propylene and methanol. Propylene producers had no success in pushing up prices in October, and methanol prices remain mired at 9 1/4 cents per pound.

Methanol has been on a long, steep climb, falling from 40 cents per gallon to 28 cents per gallon at present.

The vinyl acetate monomer increase has been somewhat more spotty than the acid hike, but the price is definitely firming, sources say. Some firming in the VAM market and the tightness of raw ma-

terials are cited as the main factors in the VAM market.

A 2-cent-per-pound increase raises selling prices to about 29 cents per pound for medium account, delivered.

An exporter of VAM says the export price for VAM increased the full 2 cents. It describes the market as extremely light. If you wanted to export VAM, you could he remarked.

Meanwhile the main consumers of vinylvinyl acetate producers, continue to struggle. An excess of supply has made the market extremely competitive, sources say, and there is little chance higher raw material costs will be passed through for the foreseeable future.

ISOPROPANOL — US production is expected through the first half of the year, according to Commerce Department market observers say this is due to a combination of an improved trade balance and demand.

Improved foreign trade is the main factor in the improvement. Through September of this year, imports are down 24 percent to 0.47 million pounds. Likewise, exportations are up 40 percent, to 18.6 million pounds.

Both the softening of the dollar and higher European production costs are credited for the net increase in trade. Costs for raw materials propylene in Europe are considerably higher than they are in the US.

In addition, US demand for the basic chemical is proceeding at a much faster rate in some end-use segments, according one producer.

One producer is posting a list price of \$1.50 per gallon, depending on delivery.

This price is said to have been fairly firm.

Summer when import pressure was high, but became softer once the flow resumed.

Imports are said to be drying up once again, however, so firmer pricing may be in the way.

2-ETHYLHEXANOL — Market sources say that a 2-cent-per-pound price increase has been largely successful, although contract-protected customers have not been affected by the announcement.

The major impetus for the price increase is that supplies, on both sides of the border, have been shut down.

Since the shutdown of the plant, US producers have above 90 percent of rated capacity.

Producers are said to be currently in the allocation battle with importers.

The world situation is said to be stable for the next few months as a 100,000-ton

## ALIPHATICS

ability in Poland is said to be coming on stream this month. The material is likely to be exported to the Far East before it is the US, however.

In the US, supply snuggess is expected to continue at least through the first quarter of next year.

Through the first half of the year, US production is up over 6 percent, compared to the same period last year. Part of this is due to the Montreal closure, but part is due to increased US demand.

Use as a cetane enhancer is singled out by one producer as a strong market currently.

Sales to the US DOP business are also healthy; DOP imports are coming in at an annualized rate of only 8 million pounds this year, as compared to a total of 25 million pounds last year.

The current list price of 34¢ per pound, delivered, is considered reasonable for average buyers.

MTBE — Although toluene advanced 3¢ per pound last week on the coattails of a

strong benzene market, little or no movement in methyl-tert butyl ether prices was reported.

Sources attribute the lack of price change to sluggishness in the octane market, where MTBE is exclusively used. One marketer said that even his toluene sales went to dehydroalkylation for benzene production, rather than for octane use.

**Pesticide Fee**

Continued from Page 7

data, EPA determines whether a pesticide can perform its intended function without causing "unreasonable adverse effects" on human health or the environment while taking into account the potential benefits of the proposed use.

The \$18 million in fees the agency expects to recover annually under the proposed rule is slightly more than one quarter of all costs EPA expended in fiscal 1985 to conduct pesticide activities.

In addition to proposing a fee structure for certain registration activities, the agency is also seeking comments regarding the establishment of a more comprehensive fee system in the near future which would cover the scientific and administrative costs of maintaining all registrations for both new and old pesticides.

This system would increase collections by approximately \$22 million to a total of \$40 million, or approximately 60 percent of all costs expended on pesticide activities by EPA in fiscal 1988.

The future fee structures would cover many of the ongoing activities in EPA's pesticide program not covered by the plan proposed last week.

These include such issues as determining data gaps in older pesticides and requiring these data from registrants; conducting special reviews of chemicals which may pose a health or environmental risk; auditing laboratories and their health data to assure that health and environmental effects studies used in support of pesticide registrations are complete and valid; and the re-registration of older pesticides.

EPA is considering two options for the planned registration fee structure.

The first is an annual fee approach. It would cover scientific review and transaction costs, prorating the average costs among producers of each active ingredient, with an annual fee for each year the registration remains on the market.

The agency has proposed the following fee schedule: new chemicals, \$183,100; old chemicals, \$3,500; new uses, \$28,900; amandment, \$800; new biomedical, \$58,000; experimental use permit, \$4,000; and food additive registration, \$5,300.

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## Chemical Finance

### Synbiotics Raises Revenue, Cuts Loss Sharply

Synbiotics Corporation, San Diego, Calif., a leading developer and manufacturer of monoclonal antibodies, boosted its fiscal second-quarter revenues more than six-fold to \$1,35,454 from \$147,428 a year earlier, while its net loss in the quarter (ended Sept. 30) was sharply reduced to \$50,802 from \$148,258.

During the quarter, Synbiotics completed a secondary public offering of common stock yielding net proceeds of \$3.8 million, which will be used to accelerate the introduction of diagnostic products for humans, noted Edward T. Maggio, president and chief executive officer.

### Laser Industries' Earnings Increase 53 Percent

Laser Industries Ltd., of Tel Aviv, Israel, a leading developer of lasers for medical and other purposes, had record net sales of \$7,730,000 in the second fiscal quarter ended September 30, up 28 percent from \$8,132,000 a year ago. Net income rose 55 percent to \$1,133,000 from \$735,000, but the increase in earnings per share was smaller — just 26 cents to 26 cents per share — because the number of shares outstanding increased substantially between the two periods.

In another development, Laser Industries began shipments of the "Sharpman™ Laser Rectoscope," a reportedly unique carbon dioxide laser endoscopic system for removal of growths including cancerous growths and obstructions, polyps and hemangiomas.

### Cabot Corporation Adopts 'Poison Pill' Defense

Cabot Corporation, Boston, Mass.-based producer of energy materials, carbons and specialty chemicals, has adopted a standard version of the "poison pill" defense against a hostile acquisition, but the company said it is not aware of any current efforts to acquire Cabot. The company will issue rights to shareholders, exercisable under certain conditions indicative of a hostile merger attempt, which will enable the holders to buy shares of Cabot stock worth twice the exercise price of the rights.

### ChemClear Has Record Sales and Net Loss

ChemClear Inc., Wayne, Pa.-based processor and treater of industrial waste, recorded high sales in the third quarter of \$5,755,581, up from \$3,834,367 a year ago, but because of a special charge related to previously accumulated waste, the company had net loss of \$476,148, as compared with earnings of \$80,131.

### Marion Raises Dividend 40 Percent

Directors of Marion Laboratories, Kansas City, Mo., have raised the quarterly dividend on the common stock by 40 percent from 5 cents to 7 cents per share, payable Jan. 10 to holders of record on December 18. At the firm's annual meeting in Kansas City, shareholders ratified the retention of Peat, Marwick, Mitchell & Co. as independent public accountants.

In addition, shareholders voted to increase the number of authorized common stock from 100 million to 170 million. Total shares outstanding on June 30 were 74.6 million.

### Norton to Buy Carborundum Abrasives

Norton Company, West Chester, Mass., has signed a letter of intent to acquire Carborundum Abrasives Company, a unit of Peck-Lynn Group, Ltd., a closely held company based in Chicago. Norton manufactures abrasives, ceramics and petroleum drilling products. Carborundum, based in Niagara Falls, N.Y., manufactures coated abrasives.

### Schering-Plough Proposing Stock Split, Dividend

Schering-Plough Corporation, of Madison and Kenilworth, N.J., said that Robert Luciano, chairman and chief executive officer, intends to propose to the board of directors that shareholders be asked to approve an increase in the company's authorized common shares to 300 million at the April 1987 annual meeting to permit a two-for-one split of the company's stock.

Mr. Luciano also expects to recommend that, based on anticipated 1987 earnings, the corporation's annual dividend rate be increased to \$2 per share on the pre-split shares, an increase of 11.1 percent.

### Goodrich Offering 2 Million Shares to Public

B.F. Goodrich & Co. is offering to the public 2 million shares of its \$5.50 cumulative convertible preferred stock, Series D, at a price of \$50 per share, through Goldman Sachs & Co. The preferred is convertible into Goodrich common at \$55 per share, subject to adjustment under certain circumstances.

### Newmont Boosting Its Interest in Peabody Holding

Newmont Mining Corporation, New York, has agreed to increase to 61.47 percent its interest in Peabody Holding Company through the purchase of the 30.75 percent interest held by Williams Companies, of Tulsa, Okla. Gordon R. Parker, chairman, president and chief executive officer disclosed. The purchase price is \$320 million. This will just about double Newmont's existing holdings.

### Tenneco Redeeming \$65 Million Debentures

Tenneco Incorporated, Houston, Tex., has elected to redeem on January 5, 1987, \$85,242,000 principal amount of its 15 percent debentures due 2006 in accordance with the terms of such debentures. In addition, a subsidiary, Houston Oil & Minerals Corporation, will prepay \$36 million of indebtedness owed to institutional lenders.

### Novo May Buy an Interest in Ferrosan

The International Investment bank of Goldman Sachs has been in contact with Novo Industri A/S and other companies in and outside of Denmark with a view to the divestment of shares of the Ferrosan Group which could contribute to the development of Novo.

"As Ferrosan has got far in areas of research within which Novo's pharmaceutical R&D is also working, we are currently investigating — through talks with Novo — Novo's interest in pursuing this possibility," said a spokesman for Novo in their New York office. Novo is the world's largest producer of industrial enzymes and one of the manufacturers of insulin.

## HEAVY & AG CHEMICALS

### Frasch Sulfur Producers Cut Tampa Prices by \$5 Per Ton

Frasch sulfur prices are decreasing by \$5 per long ton under pressure from a weakened phosphate fertilizer industry. Observers say that Gulf Coast area recovered sulfur prices should respond with a similar decline.

Freight-McMoran Resources Partnership of Texagulf Chemicals Company have announced decreases in the price of sulfur from \$162.50 to \$152.50 per long ton, f.o.b. Tampa, Fla., terminal, with equivalent decreases in delivered sulfur prices to domestic customers in other regions. New prices take effect immediately, as contracts permit.

In addition, both producers note that competitive allowances for domestic contract customers will remain in effect at this time. These allowances are based on the level of contract compliance and usually amount to as much as \$10 per ton at normal delivery levels.

Industry sources say the decrease was actually initiated by the third US Frasch sulfur producer, Pennzoil Sulphur Company. Pennzoil, however, will not comment on the matter.

Pennzoil is said to have been particularly pressed into making the change by CF Industries, its largest sulfur customer. Other phosphate producers note, however, that the phosphate industry as a whole had been pressuring Frasch sulfur producers to lower prices, even to the point of threatening to cancel contracts and look for material on the public accounts.

**RECOVERED SULFUR LOWER**  
Market observers say that, historically, recovered sulfur prices, although lower than Frasch prices, respond to changes on an essentially one-to-one basis through a de-escalation built into contracts. Sources say recovered prices are currently in the \$115-to-\$120 per long-ton range, f.o.b. Gulf area refinery, and around \$120 or \$122 per ton, delivered to the Houston area. One buyer says some recovered sulfur marketers are looking at December 1 as an effective date.

Sulfur prices on the world market have been steadily slipping over the course of the year, again due to weakness in the world fertilizer market. For instance, prices for Canadian sulfur, f.o.b. Vancouver and intended for export, have dropped as much as 10 per cent this year, and are currently close to \$110 per metric ton.

Traditionally, most sulfur analysts still feel the long-term world sulfur price outlook is relatively stable, with significant increases beginning possibly next year. This is because, despite lower demand, sulfur stocks in Canada continue to dwindle, and their availability later this decade will put a crimp on supply.

Frasch sulfur's importance has diminished somewhat this year, as it is backed out of the market by more prevalent material recovery and from petroleum refining. Through September, according to Bureau of Mines, US sulfur recovered production is up almost 5 percent, to 2.8 million metric tons, while

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SEPTEMBER: SHORT TONS/DAY			
	SEPT.	AUG.	SEPT. '85
CHLORINE	25,125	27,483	27,743
Gas produced*	23,481	23,288	23,224
Liquid produced	13,490	13,543	12,987
Caustic Soda			
Gas produced*	29,663	28,386	29,608
Liquid produced	843	558	754
Capacity	35,000	35,080	36,840
Operating Rate	92.2%	90.4%	80.2%

\*Source: Chlorine Institute.  
\*\*Tonnes converted to short tons.

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28 CHEMICAL MARKETING REPORTER November 24, 1986

## PERFUMES & FLAVORINGS

### Benzyl Acetate Imports Rise; Prices, Production Are Down

Benzyl acetate imports have risen steadily in the last three months as competition for the US market has tightened dramatically. Prices for the material have been driven down by this market climate, according to industry sources, to the point where some US producers have reportedly stopped production.

Prices have fallen from \$1.25 to \$1.00 per pound to below \$1 per pound. "Large shipments have come in from Europe at \$1 per pound duty paid," says an importer. The international market is trading at even lower levels, he says, as low as 50¢ per pound for some transactions.

Underlining the extremely low pricing levels of benzyl acetate is one of the most exorbitant items in the perfume industry. The duty in 1985 is 34.1 percent of product value; in 1987 it will be 30.6 percent. Despite this substantial impediment, European producers are still able to market their benzyl acetate successfully in the US.

The exception to this rule is Mexico which, because of its GSP status, exports benzyl acetate to the US duty free. Through September, 1986 Mexico accounted for approximately 45 percent of the total US imports with 498,877 pounds. "Mexican material has a considerable advantage over other imports," says an aroma chemicals dealer, "primarily because of the duty."

Total imports from January through September, 1986 were 1,115,399 pounds, well ahead of the levels recorded during the same period last year: 911,756 pounds.

#### BENZYL ACETATE SUPPLIERS

Other major exporters of benzyl acetate to the US include Great Britain, about 20 percent, China, 18 percent, and Italy and Spain with 8 and 6 percent respectively.

Industry sources emphasize several factors as causing the relative flood of material and resultant price declines. The Italian material, only entering the market this year as of August yet commanding a larger and larger segment, is said to be offered at very low prices: "The Italian material is at such low prices," says one aroma chemicals broker, "that it's putting a crunch on the market."

Another aroma chemicals broker attributes the market climate to all European points of origin, stressing that their competition spilled over into the US market: "One of the major responses to the dollar's decline since mid-1985 was that the Europeans came in and tried to dominate the US market."

This same broker sees the Chinese influence on the benzyl acetate market, though now dwindling due to the lower prices offered from Europe, as important in driving the market to its present state. "China sought US dollars, hard currency, and they priced their product accordingly," he says.

An aroma chemicals importer observes that this situation is no longer the case: "The Chinese have been trying very hard to sell benzyl acetate but find themselves priced out of the market by the European competition." He adds that the Chinese material can be less attractive than other products because of the从 poor quality drums to standard ones adds a 6 or 7¢ per pound cost to the material.

Sources are in agreement concerning end-users and current inventories. "Demand is not up," says one source, "and no new end-users are known." An importer concurs: "Because the price is so low it has tempted people to bring in large amounts, but it's more stockpiling of inventories than anything else."

One spice broker says the pools of origin are behind the high pepper prices: "Some markets have been raising prices steadily. Supply in the near future, may cause problems because the Indian crop is expected to be smaller than last year's bumper crop." The crop estimated range around 70 percent of last year's yield. This will have a substantial impact on international market prices.

Contributing to this anticipated shortfall of material, he adds, are rumors that consistent rains will delay the Indian harvest.

production and sale of operations earlier this year to Harrman & Reimer (CMR).  
**ESSENTIAL OILS**

**GERANIUM OIL** — Shipping prices for geranium oil softened last week as a result of the Egyptian crop hitting the market. Both spot and shipping prices fell 10¢ per pound.

#### PRICES TRENDLINES

WEEK ENDING NOV. 21, 1986

#### CHANGES/UP

Aleppo, Customhouse, 5c. per lb.; Cinnamaldehyde, 5c. per lb.; Citronellol, 10-20c. per kilo; Geraniol, 10-15c. per lb.; Laurel leaf, Turkish semi-select, 20c. per kilo; Mace, Siam, 10c. per lb.; Ocotea cinnamomum oil, 10c. per lb.; Pepper, black, 14-16c. per lb.; Pepper, white, 5c. per lb.; Rosemary, 2c. per lb.

#### CHANGES/DOWN

All base resins. Egyptian reedmace, 4c. per lb.; Coriander seed, 1-2c. per lb.; Cetea, Indonesian resin, 1-5c. per lb.; Oenanthem oil, 51¢ per kilo; Clinger root, Chinese whole, 2-8c. per lb.; Peppermint, Egyptian whole, 25c. per lb.; Peppermint oil, Chinese 50%, 10c. per kilo.

#### PERFUMES INDEX

The Perfumes & Flavorings Index reflects the prices of 11 representative materials in this sector and the quantity of each supplied in 1986.

Nov. 21, 1986 ..... 71.00  
 Nov. 14, 1986 ..... 71.00  
 Oct. 17, 1986 ..... 71.00  
 Nov. 22, 1985 ..... 71.00

Chemical Prices Start on Page 28

the effects of the larger Egyptian crop this monthago (CMR 10/27/86 p. 37) and/or the competition between Egyptian and Chinese suppliers is sharpening.

Egyptian geranium oil fell six dollars from \$4.45 per kilo f.o.b. New York to \$3.30 per kilo same basis. The Chinese material also decreased a dollar from \$4.50 per kilo and freight New York to \$4.50 same basis.

One essential oils dealer maintains that the softer pricing is due solely to the increased availability of material effected by the Egyptian harvest. "When there is more material available," he says, "growers' sellers will let it go for lower prices."

Another essential oils dealer cites the willingness of the Chinese producers to cut prices in order to obtain US dollars, or other hard currency. "The Chinese will cut prices to do business, they're anxious to get dollars, we've been really lowering their prices."

This same broker sees the Chinese influence on the benzyl acetate market, though now dwindling due to the lower prices offered from Europe, as important in driving the market to its present state. "China sought US dollars, hard currency, and they priced their product accordingly," he says.

An aroma chemicals importer observes that this situation is no longer the case: "The Chinese have been trying very hard to sell benzyl acetate but find themselves priced out of the market by the European competition." He adds that the Chinese material can be less attractive than other products because of the从 poor quality drums to standard ones adds a 6 or 7¢ per pound cost to the material.

Sources are in agreement concerning end-users and current inventories. "Demand is not up," says one source, "and no new end-users are known." An importer concurs: "Because the price is so low it has tempted people to bring in large amounts, but it's more stockpiling of inventories than anything else."

One spice broker says the pools of origin are behind the high pepper prices: "Some markets have been raising prices steadily. Supply in the near future, may cause problems because the Indian crop is expected to be smaller than last year's bumper crop." The crop estimated range around 70 percent of last year's yield. This will have a substantial impact on international market prices.

Contributing to this anticipated shortfall of material, he adds, are rumors that consistent rains will delay the Indian harvest.

## CHEMICAL IMPORTS

US imports of chemicals and related materials are reported in this section by CPI material. Listings include consignee where possible, container, net weight, name of vessel (in parentheses), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A-B

**ACID AMINO UNOECANOIC** 80 bbls (125675 lbs) (See Land Adventur) Agadir, 10/21.  
**ACRYLONITRILE BUTADIENE RUBBER** Alba Fwdg 486 bbls (36240 lbs) (New York Manu) Kobe, 10/15.  
**AGAR AGAR** Aframeport 20 dms (2425 lbs) (American Aquarium) Antwerp 10/20.

**ALUMINUM OXIDE** Trebsacher 40 pnt (157781 lbs) (Bert American) Bremerhaven, 10/23.  
**ALUMINUM PAIBE** Landers Sejal Color 146 dms (38632 lbs) (Bar Zen) Leghorn, 10/23.  
**ANISE SEED** Schiff Food Products 240 bgs (28466 lbs) (Bar Zen) Valencia, 10/23.

**ANTIMONY SULFIDE** Ullmann 80 pnt (6258 lbs) (Ever Loading) Antwerp, 10/20.

**AROMA KARAYA** Celanese 260 bgs (29405 lbs) (Bar Zen) Iulub, 10/23.  
**Mear 200** bgs (38380 lbs) (Bar Zen) Outal, 10/25.  
**Celanese** 340 bgs (38463 lbs) (Bar Zen) Outal, 10/23.  
**Celanese** 200 bgs (22616 lbs) (Bar Zen) Outal, 10/23.  
**Colony Imports & Exports** 168 bgs (38303 lbs) (Bar Zen) Iulub, 10/23.  
**Diamond Phenox** 438 bgs (3112 lbs) (Bar Zen) Outal, 10/23.

**GUM KARAYA** Celanese 260 bgs (29405 lbs) (Bar Zen) Iulub, 10/23.  
**Mear 200** bgs (38380 lbs) (Bar Zen) Outal, 10/25.  
**Celanese** 340 bgs (38463 lbs) (Bar Zen) Outal, 10/23.  
**Celanese** 200 bgs (22616 lbs) (Bar Zen) Outal, 10/23.  
**Colony Imports & Exports** 168 bgs (38303 lbs) (Bar Zen) Iulub, 10/23.

**GUM KARAYA** Celanese 260 bgs (29405 lbs) (Bar Zen) Iulub, 10/23.

**GUM ROSIN** Pine Resins Marketing 830 bgs (34722 lbs) (Bert American) Antwerp, 10/23.

**GUM TRAGACANTH** Mory Vandergift 25 cts (0 lbs) (Heide) Hamburg, 10/19.

**HYDROGEN PEROXIDE** FMC 216 dms (30022 lbs) (Ever Loading) Antwerp, 10/20.

**HYDROQUINONE** Saratoga Fwdg 800 bgs (33863 lbs) (Lars Maerk) Hong Kong, 10/10.

**MILU 720** bgs (1023 lbs) (Ming Galaxy) Kobe, 10/23.

**IRON(II) CARBONATE** Glyme Laboratories 200 dms (24251 lbs) (Tuboholje) Rijeka, 10/18.

**IRON CARBONATE** 10 pnt (2222 lbs) (New York Manu) Tokyo, 10/15.

**IRON(II) CARBONATE** Amalgamated Metal 800 bgs (37776 lbs) (Lars Maerk) Hong Kong, 10/10.

**KELITE** 20 bgs (0 lbs) (American Resolute) Leghorn, 10/21.

**BARUM CARBONATE** 10 pnt (2222 lbs) (Tadeusz Kosciuszko) Rotterdam, 10/23.

**SCM 3520** bgs (8096 lbs) (American Aquarium) Felixstowe, 10/23.

**SHILOVNE BOONO** 5 pnt (3886 lbs) (Lars Maerk) Kobe, 10/23.

**TRIMETHYL HEXAMETHYLENE DIAMINE** Nuodax, 80 dms (36538 lbs) (Tadeusz Kosciuszko) Rotterdam, 10/21.

**TRIMETHYL ALUMINIUM CYCLONERS** Morton Thielok 1 cs (22 lbs) (New York Manu) Tokyo, 10/1.

**POTASSIUM BROMATE** Ameribrom 184 dms (13735 lbs) (American Resolute) Halle, 10/21.

**POTASSIUM CHLORIDE** Key Fries 400 bgs (41056 lbs) (Ever Loading) Antwerp, 10/20.

**POTASSIUM CHLORIDE** T R America Chemicals 180 dms (47257 lbs) (Sea Land Adventur) Algeciras, 10/21.

**POTASSIUM CHLOROICE** Potash Import & Chemical 720 kg (40000 lbs) (Ever Loading) Hamburg, 10/20.

**POTASSIUM STEARATE** Total Port Clearance 40 bags (2275 lbs) (Tadeusz Kosciuszko) Rotterdam, 10/23.

**PYRAZOLIJONE** 8. Semri Shpg 10 dms (1235 lbs) (Ming Galaxy) Kobe, 10/23.

**PYRIDOXINE HYDROCHLORIDE** Gyma Laboratories 40 dms (2801 lbs) (Tuboholje) Rijeka, 10/16.

**STEARIC ACID** Total Port Clearance 240 bags (13735 lbs) (Tadeusz Kosciuszko) Rotterdam, 10/21.

**TERPENEOL NORMAL** T R America Chemicals 81 dms (29121 lbs) (Bar Zen) Fos, 10/23.

**TETRADEUTYL AMMONIUM BORATE** Leyden Customs Expediary 20 dms (2868 lbs) (American Resolute) Naples, 10/21.

**THIOUREA** 880 bgs (37703 lbs) (Lars Maerk) Hong Kong, 10/23.

**TITANIUM OXIDE** O N Lukens Chemical 880 bgs (44137 lbs) (Sea Land Adventur) Algeciras, 10/21.

**Lukens Chemical** 880 bgs (44138 lbs) (American Resolute) Cadiz, 10/21.

**B R TELMOUR** 880 bgs (44137 lbs) (Sea Land Adventur) Algeciras, 10/21.

**SCM 3520** bgs (8096 lbs) (American Aquarium) Felixstowe, 10/23.

**SHILOVNE BOONO** 5 pnt (3886 lbs) (Lars Maerk) Kobe, 10/23.

**TRIMETHYL HEXAMETHYLENE DIAMINE** Nuodax, 80 dms (36538 lbs) (Tadeusz Kosciuszko) Rotterdam, 10/21.

**TRIMETHYL ALUMINIUM CYCLONERS** Morton Thielok 1 cs (22 lbs) (New York Manu) Tokyo, 10/1.

**URIDIA FORMALDEHYDE** 10 pnt (21307 lbs) (Sea Land Adventur) Algeciras, 10/21.



# CHEMICAL PRICES

WEEK ENDING NOV 21, 1986

Chlorinated paraffin, Zone 2 prices are 10. per lb., higher and Zone 3 prices are 20. per lb., higher and I.L. drum prices are 50. per lb., higher.

Chlorinated rubber, 5, 10, 20 cps, bgs, t.i. divd. 1.88 -

40 cps, bgs, t.i. divd. 1.92 -

125 cps, bgs, t.i. divd. 2.80 -

300 cps, bgs, t.i. divd. 2.75 -

Chlorine, tank single units works, t.i. divd. ton 185.00 200.00

Chlorosulfone acid, mono, high purity, 100% built, t.i. works. 1.58 -

2-Chloro-4-aminotoluene, tech, fms, dms, t.i. t.i. divd. 1.48 -

o-Chlorophenol, liquid, dms, t.i. t.i. divd. 1.68 -

lenks, same basis. 1.63 -

p-Chlorophenol, solid, t.i. t.i. divd. 1.70 -

Nafo, t.i. t.i. divd. 2.00 -

o-Chlorotoluene, dms, t.i. t.i. divd. 2.45 -

p-Chlorotoluene, dms, t.i. t.i. divd. 2.00 -

o-Chlorobenzene, dms, t.i. t.i. divd. 3.84 6.96

p-Chlorobenzene acid, dms, 500-lb. lots or more, works. 3.90 -

Chloroform, tech, tanks, dist, divd. 1.34 -

tech, consumers, tanks, divd. 1.34 -

NF tanks, min., consumers, 4,000 -

lugs, t.i. divd. 3.56 -

2-Chloro-4-nitroaniline, paste, com- modity basis, t.i. t.i. divd. 3.08 -

4-Chloro-2-nitroaniline, paste, 172.5 mol wt, commodity basis, dms, t.i. t.i. divd. 2.25 -

o-Chlorophenol, dms, t.i. t.i. divd. 2.70 -

o-Chlorophenol, dms, t.i. t.i. divd. 2.42 -

p-Chlorophenol, dms, t.i. t.i. divd. 1.25 1.70

Chloroplatin, cont. 1,500-lb. cgs, t.i. t.i. divd. 1.25 -

Chlorosulfone acid, tanks, t.i. t.i. divd. 1.18 -

Chlorotoluene, tech, tanks, t.i. t.i. divd. 1.00 -

Cholestanol, dry, 40,000,000 units per gram, 100%, 100,000 units per gram, 100%. 24.00 -

Choline bitartrate, crystal, anhydrous, 50 kilo, t.o.b. Springfield, Mo. 6.90 -

Choline chloride, laed grade, 70% aqueous, t.c., t.i. divd. E of Rockies. 2.28 -

60% dry supplement. 3.38 -

Choline chloride, 60% dry supplement, bulk, hog car. 3.39 -

bgs, 50,000 units. 4.40 -

Choline chloride, pharmaceutical, 50 kilo, lots, t.o.b. Springfield, Mo. 5.00 -

Choline hydrogen citrate, 90% min, 50 kilo lots, t.o.b. Springfield, Mo. 6.00 -

Chrome acid, CP extra light, bgs, divd. E of Rockies. 1.60 -

light, bgs, same basis. 1.70 -

medium, bgs, same basis. 1.72 -

extra dry, CP, same basis. 1.74 -

Chrome orange, CP, bgs, divd. E of Rockies. 0.88 .89 -

Chrome yellow PP bogs, divd. E of Rockies. 1.09 1.16 -

grd, same basis. 1.16 -

Chromium acetate, sohd, 75% min, 500-lb. lots, works. 1.25 -

Chromium fluorides, dms, t.i. t.i. divd. 1.10 -

works. 1.10 -

Chromite, dms, t.i. t.i. divd. 1.45 -

10% metal soln, 500-lb. lots, same basis. 1.74 -

Chromium oxide, hydrated, 50% bgs, t.i. divd. 1.16 -

pure, bgs, t.i. divd. 1.60 2.00 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

Cinnamal, H2. 4.50 -

Cinnamom bark oil, bgs, t.i. divd. 0.95 1.00 -

Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

Cinnamal, H2. 4.50 -

Cinnamom bark oil, bgs, t.i. divd. 0.95 1.00 -

Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

Cinnamal, H2. 4.50 -

Cinnamom bark oil, bgs, t.i. divd. 0.95 1.00 -

Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

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Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

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Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

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Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

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Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

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Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

Cinnamal, H2. 4.50 -

Cinnamom bark oil, bgs, t.i. divd. 0.95 1.00 -

Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

Cinnamal, H2. 4.50 -

Cinnamom bark oil, bgs, t.i. divd. 0.95 1.00 -

Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -

Cinnamal, H2. 4.50 -

Cinnamom bark oil, bgs, t.i. divd. 0.95 1.00 -

Cinnamom leaf oil, dms, t.i. divd. 105.00 110.00 -

Citra, nat., dms, t.i. divd. 2.75 -

syn, 55% dms, t.i. divd. 2.65 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. 1.19 -

Citic acid, USP, hydros, gran, 250-b. dms, t.i. divd. .68 -

Citic acid anhydride, powder, bright, 1.60 -

Crystallized aldehyde, one, dms, t.i. divd. 1.85 1.95 -



# **CHEMICAL PRICES**

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WEEK ENDING NOV 01 1998

Perchloroethylene, dry cleaning grade, distr., tanks, divd.	.28½	-
Indust. grade, consumers, tanks, divd.	.31	-
Perfum. dms.	2.55	-
Permanent red 2B, (red 48), calcium salts, dms., f.t. std.	5.25	-
berium salts, same basis	5.26	-
Peru balsam, f.o.b.	3.25	-
Petroleum oil, Paraguay	5.00	-
Petroleum, USP, snow white, dms., o.t., refy.	.875	-
tanks, refy.	.910	-
USP, soft white, dms., c.i., refy.	.375	-
tanks, refy.	.910	-
USP, fly white, dms., o.t., refy.	.870	-
Petroatum, USP, Lilly white, tanks, refy.	.305	-
USP, cream, dms., o.t., refy.	.385	-
tanks, refy.	.30	-
USP, soft yellow, dms., o.t., refy.	.850	-
tanks, refy.	.285	-
USP, amber, dms., o.t., refy.	.345	-
tanks, refy.	.280	-
Petroleum pitch (see Asphalt, petroleum).		
Petroleum sulfonates, 60-82%, sulfuric cont., HMW, bulk, works	.48½	.49
MMW, same basis	.49	-
LMW, same basis	.49	.49½
Prices for 5½% sulfonic content 20 per lb. lower on corresponding molecular wts.		
Phenacetin USP, powd., 200-lb. dms., 1,000-lb. lots, divd.	2.20	-
1,000-lb. dms., 1,000-lb. lots, divd.	2.22	2.45
p-Phenetidine, dms., o.t., t.o.b.	2.00	-
Phenobarbital, USP, dms., 600-kilo lots, f.o.b. works	19.50	-
Phenobarbital-sodium, NF, 600-kilo lots, f.o.b. works	27.00	-
Phenol, syn. tanks, f.t. equivd.	.26	.29
p-Phenoxyulfonic acid, 88% sofn., dms., o.t., f.o.b. works	.84	-
tanks, same basis	.86	-
Phenothiazine, Indust. grade, 50-lb. bags, c.i., f.o.b. works	2.33	-
purif. grade, same basis	2.89	-
Phenyl acetate, dms., 100-lb. lots, works	1.04	-
Phenylocetone acid, pure cryst., 25-lb. cans	4.50	-
di-Phenylsulfone, dms., 25-kilo lots	84.00	-
1-Phenyl-3-carboxy pyrazole-5, dms., 200-lb. lots, divd. E.	3.45	-
m-Phenylenediamine, cast, dms., c.i., t.i., f.o.b. works	2.07	-
o-Phenylenediamine, flaked, dms., t.i., f.o.b. works	3.25	-
p-Phenylenediamine, flaked, dms., f.o.b. works	4.00	-
Phenylephrine hydrochloride, USP 100-kilo lots or more	178.00	185.00
Phenylethyl acetate, dms.	3.35	-
2-Phenylethyl alcohol, NF, dms.	2.10	2.20
b-Phenylethylamine, dms., 30,000 lbs. or more, f.t. std.	1.50	-
Phenylethyphenyl acetate, 25-lb. cans	5.50	6.90
Phenylglycolic acid (see Mandelic acid).		
Phenylhydrazine, 89% min., dms.	3.50	-
1-Phenyl-3-methyl-5-pyrazole, dms., 250-lb. lots divd. E.	1.80	-
o-Phenylphenol, dms., t.i., works	1.35	2.00
p-Phenylphenol, bgs., t.i., 40,000 lbs. or more, works	1.85	-
Phenylpropanolamine hydrochloride, 100-kilo dms.	24.00	28.00
Phenylsalicylate, purif. cryst., dms., E., tech., cryst. E.	2.75	-
Flake, E.	2.25	-
Phloxine toner (red 80), dms., f.t. std.	1.95	2.05
Phosgene, 1-ton net cyl., 5 to 9-cyl. quantities, works	.55	.67
Phosphate rock, Fla., land pebble, run of mine washed, 66-88% b.p.l. bulk o.t. mines	23.15	-
Phosphoric acid, com'l. and tech. grades, 75% tanks, works	26.00	-
100-lb. 80% tanks, works	26.00	-
85% N.F. tanks, f.o.b. freight equal.	31.00	-
100-lbs.	33.50	-
Food grade prices \$2.00 above tech. grade.		
Phosphoric acid, agricultural grade, 52-54% e.p.a., tanks, works	3.10	-
super. min. 70% a.p.e., same basis	3.45	-
Phosphorus, white (yellow) solid dms., c.i., works, f.t. equivd.	1.00	-
tanks, works, f.o.b. works	.91	-
Phosphorus oxychloride, tanks, f.t. equivd.	.40	-
Phosphorus pentasulfide, powd., dms., o.t., works	50.00	-
tote bins, sellers	45.00	-
Phosphorus pentoxide, dms., t.i., works	.82	-
Phosphorus sesquioxide, dms., c.v., c.i., works	.38	-
Phosphorus trichloride, dms., o.t., works	.40	-
tanks, works	.85	-
Phthalic anhydride, flake, c.i., t.i., dms., f.t. equivd.	.30	-
moisten, tanks, same basis	.27	-
Prices 1-1½c. per lb. higher on the West Coast	.85	-
Phthalocyanine blue toner, red shade, bgs., f.t. std. E. of Rockies	.845	-
green shade, same basis	.830	-
resinated, bgs., same basis	.810	-
work, f.t. std.		
Wash, f.t. std.		
St. Louis, Charlotte, N.C.	.50	-
Pigment green B, kgs.	2.20	-
Pilocarpine hydrochloride, USP, dms.	Mto. 1,500.00	2,000.00
Pimento leaf oil, dms.	13.80	-
Pine oil, 80% min. alcohol content, bulk, f.o.b. works	47.00	53.00
same basis	51.00	54.00
a-Pinen, perfume grade	1.62	-
tech. grade	.18	.23
b-Phene, perfumery grade, tanks	2.30	-
tech. grade, tanks	.35	.40
Piperazine, anhyd., dms., t.i., f.t. std.	1.50	-
E.	1.50	-
Piperazine citrate, 86%, dms., 1,100-lb. lots, f.t. std.	2.25	2.35
Piperazine dihydrochloride, 83%, dms., t.i., f.t. std.	2.00	-
Piperazine hexahydrate, 44% dms., 1,100-lb. lots, f.t. std.	1.80	-
Piperazine phosphate, 42%, dms., t.i., f.t. std.	1.50	-
Piperidine citrate, 98% min., dms., c.i., t.i., works	8.92	-
Piperonyl butoxide, dms., divd. E.	5.00	-
Platinum, metal, works	480.00	-
Poly carbonate resin, pellets, nat., t.i., f.t. std.	1.84	1.86
Polyester resin, unsaturated, g.p., orthophthalic, bulk, tankcars, f.t. std.	.51	.53
isophthalic, same basis	.58	.82
Polyethylene resin, high-density, blow molding, g.p., hopper cars, f.t. std.	.44	.52
Injection molding, g.p., hopper cars, f.t. std.	.43	.48
extrusion, g.p., hopper cars, same basis	.47	.48
wire end cable, nat., hopper cars, same basis	.54	.85
wire and cable, black, same basis	.66	.75
Polyethylene resin, low-density, film liner, hopper cars, f.t. std.	.36	.38
clarify film, hopper cars, f.t. std.	.35	.37
pallet shrink film, hopper cars, same basis	.36	-
extrusion coating, hopper cars, same basis	.38	.42
g.p., hopper cars, same basis	.37	.38
Polyethylene linear low-density g.p. resin	.38	.40
blown film resin	.40	.43½
cast film resin	.40	.45
Polyethylene resin, low-density injection molding, g.p., hopper cars, same basis	.45	.48
line wire, CATV, power cable, ib.	.70	1.15
wire and cable thermoplastic high-voltage, natural color, same basis	.80	.90
wire and cable, XLPE low voltage, 14% carbon black, same basis	.68	.73
wire and cable jacketing, black	.60	.81
Polymyxin sulfate, USP, bulk, 50-billion units min.	.52	-
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works	.73	-
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works	.73	-
Polypropylene resin, homopolymer, g.p., net, t.i., f.t. std.	.45	.48
copolymer, med. Impact, nat., same basis	.50	.58
high impact, same basis	.53	.60
Colored material 6c. per lb. higher for each grade		
Poly styrene resin, cryst., net, hopper care, f.t. std.	.48	-
Impact, nat., hopper care, same basis	.51	-
high heat, high impact, net, hopper care, same basis	.52	-
expandable beads (EPS), pkging Grade, 1,000-lb. lots	.62	-
modified, same basis	.69	-
Polyvinyl alcohol, fully hydrolyzed, medium viscosity, bgs., t.i., divd.	.73	-
partially hydrolyzed, medium viscosity, bgs., t.i., divd.	.73	-
Polyvinyl chloride resin, g.p., homopolymer dispersion, bgs., t.i., divd.	.50	-
g.p. suspension, bulk, same basis	.38	-
pipe grade, bulk, same basis	.47	-
film grade, bulk, same basis	.37	.47
Polyvinyl chloride, g.p., copolymer dispersion, same basis	.58	.81
g.p. copolymer suspension, same basis	.48	.49
Poppyseed, Dutch, bgs.	.59	-
Turkey, bgs.	.53	-
Potash agricultural (see Potassium muriate).		
Potash, caustic, liq., 45% basis, tanks, works	18.00	-
West Coast, 50% basis, tanks, ex terminal	18.00	-
reg. flake, 53-52, 400-lb. dms., t.i., works	18.05	-
100-lb. tote bins, sellers	18.00	-
Potassium acetate, NF, gran., dms., t.i., works E.	42.35	-
Potassium bicarbonate, tech., gran., bgs., t.i., works	.90	1.31
Potassium bicarbonate, USP, gran., dms., t.i., works	.31½	-
Potassium bicarbonate, tech., gran., bgs., t.i., works	.70	-
Potassium citrate, t.i., works	100 lbs.	-
calcined, 99-100% K <sub>2</sub> CO <sub>3</sub> , hopper cars or trucks, works	100 lbs.	32.50
bags, o.t., t.i., works	100 lbs.	35.20
drums	100 lbs.	36.40
Potassium carbonate, gran., purif., 400-lb. dms., 8-cm. lots, t.i., works	100 lbs.	.40
Potassium chlorate, cryst., dms., c.i., works	100 lbs.	.30
powd., dms., o.t., works	100 lbs.	.30
purif., gran., 325-lb. dms., t.o.b. shipping point	100 lbs.	.40
Potassium chloride, chemical grade, 99.85% KCl, bulk, o.t., f.o.b. works	ton	105.00
USP cryst. dms.	100 lbs.	1.12
USP gran. dms.	100 lbs.	.67
Potassium chloride, agricultural (see Potassium muriate).		
Potassium chromate, purif., cryst., dms., works	100 lbs.	.67
Potassium citrate, NF, gran., 200-lb. dms., f.t. std.	100 lbs.	.93½
Potassium cyanide, dms., 20,000-lb. lots or more, f.o.b. works	100 lbs.	1.32
Potassium dichromate (see Potassium bichromate).		
Potassium fluorate, tech., dms., c.i., t.i., works, f.t. equivd.	100 lbs.	1.40
Potassium fluoride, anhyd., dms., t.i., f.o.b. works	100 lbs.	1.68
Potassium gluconate, dms., t.i., f.o.b. works	100 lbs.	1.45
Price W. of Denver 4c. per lb. higher.		
Potassium guadecosulfone, 300-lb. dms., 800 lbs. or more f.t. equivd.		2.10
Potassium hydroxide, tech. (see Potash, caustic).		
Potassium hydroxide, USP, pellets, 100-lb. dms., c.i., t.i., works, f.t. equivd.		1.31
Potassium iodide, USP, gran., cryst., dms., 1,000-lb. lots divd.		10.72
ACS grade truckload		11.32
Potassium-magnesium sulfate, std., bgs., works, ton		59.00
basic 40% K <sub>2</sub> SO <sub>4</sub> and 55% MgSO <sub>4</sub> , bulk, works		87.00
Potassium metabisulfite, gran., dms., t.i., f.o.b. Sask., Canada		.44
soluble, fine std., f.o.b. Sask.		52.00
coarse, f.o.b. Sask.		53.50
gran., f.o.b. Sask.		57.00
ton c.i., divd. E.		58.50
Potassium nitrate, fert. grade, std., 50-ton c.i., divd. E.		267.00
prilled		277.00
tech., gran., bags, c.i., min. 50 tons, divd.		284.00
Potassium oxalate, neutral, tech., 5kg gran., powd., 300-lb. dm., f.t. equivd.		2.54
Potassium penitoborate, gran., bags, o.t., works		1.01
dm., same basis		1.08
Potassium pentaborate powder 150 per lb. higher.		
Potassium perchlorate, dms. c.i., works		.78
Potassium permanganate, free flowing, bulk, hopper trucks, works		1.08
50-kg. dms., same basis		1.20
150-kg. dms., same basis		1.17
Potassium permanganate, USP, 50-lb. bags, works, o.t., t.i.		1.38
Potassium per sulfate, 225-lb. dms., 24,000-lbs. or more, f.o.b.		
plant		
c/i same basis		78.80
Potassium pyrophosphate tetrabasic, bags, o.t., t.i., works, E., f.t. equivd.		72.50
Liquid, bulk		100 lbs.
Potassium salicylate, USP, gran., 200-lb. dms., 2,000 lbs. or more, works, f.t. std.		48.00
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis		1.52
Potassium silicate, sofn., 28-30.2 Be., 2.5 ratio, i.c., t.i., works		18.80
dms., o.t., t.i., works		25.50
Potassium silicate, 40-40.5 Be., 2.1 ratio, t.i., t.c., f.t. std.		25.05
40-40.5 Be., 2.1 ratio, dms., o.t., i.i., works		32.05
Potassium silicate, electronic grade, 30-30.4 Be., 2.1-2.2 ratio, t.o., t.t., works		26.10
dms., o.t., i.i., works		33.10
solid or glass, 2.15 ratio, dms., c.i., t.i., works		53.30
solid or glass, 2.8 ratio, dms., c.i., t.i., works		45.85
"Ratio" indicates percentage by weight of SiO <sub>2</sub> divided by weight of K <sub>2</sub> O.		
Potassium silicotungstate, bags, o.t., t.i., f.t. equivd.		
Potassium sodium tartrate, NF, gran. or powd., dms.		.11½
Potassium sorbate, t.i., dms., divd.		.60
Potassium stannate, dms., f.t. std. ib.		2.60
Potassium sulfate, agricultural grade, min. 50% K <sub>2</sub> O std., bulk, o.t., 1.0-b. works		N.A.
Potassium sulfate, gran., purif., 400-lb. dms., f.t. std.		150.00
Potassium sulfate, gran., purif., 400-lb. dms., f.t. std.		160.00

- 1 -

# **CHEMICAL PRICES**

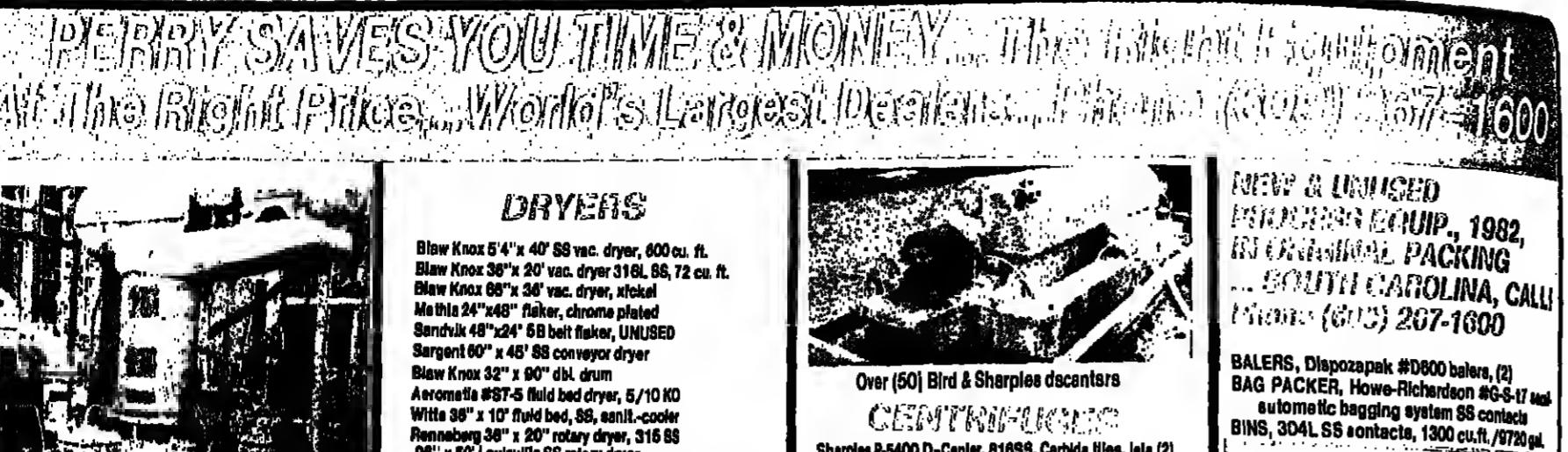
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WEEK ENDING NOV 21, 1980









## KETTLES-HEACTORS, SS.

30,000 gal. 304SS fermenter, 14' x 24', 25 gal./cu. ft., coils, 200 ft. agit. (4)  
5,000 gal. 304SS, atm. int., 75 gal. lxt., agit.  
4,100 gal. Pfaudler, kettle, 15 gal. lxt., 5 HP agit.  
3,500 gal. 316SS kettle, 20 gal. lxt., 7.5 HP agit. (2)  
2,500 gal. 304SS reactor, 75 gal./FV int., 180 gal. lxt.  
1,800 gal. 304SS kettles, lxt., 6 HP agit. (3)  
1,600 gal. Pfaudler 316LSS reactor, FV/180 gal., 6 HP agit. (2)  
1,180 gal. Pfaudler, 25 gal. lxt., 60 gal. lxt., 6 HP agit.  
900 gal. 304SS, atm. int., 75 gal. lxt., agit.  
600 gal. 304SS reactor, 300 gal. lxt., 75 gal. lxt., coils (6)  
500 gal. 304SS reactor, 75 gal./FV int., 60 gal. lxt.  
300 gal. 316SS reactor, 75 gal./FV int., 60 gal. lxt.  
(50) 316SS and 304SS reactors and kettles from 5  
gallon to 400 gallon...call or visit.

## EMG EQUIPMENT

316SS KETTLES  
(1) 15,000 gal. H-1000, 316SS,  
12' x 17', 100 psi, 100 psi, Agit.  
(1) 10,000 gal. H-1000, 316SS, 12' x 17',  
100 psi, 100 psi, 100 psi, Agit.

## REACTORS-GLASS

2 gal. Pfaudler, 750 psi/FV, 700 gal. lxt.  
20 gal. Pfaudler, 35 gal. 100 gal. lxt., agit. (2)  
30 gal. Pfaudler, lxt.  
50 gal. Pfaudler, 25 gal. lxt., agit.  
50 gal. Pfaudler, 100 gal./vac., 85 gal. lxt., agit., 1875  
100 gal. Pfaudler, 25 gal./vac., 90 gal. lxt., agit.  
150 gal. Pfaudler, 25 gal./vac., 90 gal. lxt., agit.  
300 gal. Glassline, 25 gal./vac., 90 gal. lxt., agit.  
500 gal. Pfaudler, 100 gal./vac., 90 gal. lxt., vari-drive agit.  
300 gal. Delaval, 65 gal./vac., 90 gal. lxt., 6 HP agit.  
750 gal. Pfaudler, 65 gal./vac., 90 gal. lxt., 6 HP agit.  
1,000 gal. Pfaudler, 25 gal./vac., 90 gal. lxt., 6 HP agit.  
1,000 gal. Pfaudler, 75 gal./vac., 90 gal. lxt., 10 HP agit.  
1,500 gal. Delaval, 100 gal./vac., 90 gal. lxt., 10 HP agit.  
1,500 gal. Pfaudler, 100 gal./vac., 90 gal. lxt., 10 HP agit.  
2,000 gal. Pfaudler, 100 gal./vac., 90 gal. lxt., 25 HP agit.  
2,500 gal. Pfaudler, 100 gal./vac., 90 gal. lxt., 25 HP agit.

## NEW LIQUIDATION!

CHEMICAL/POLYMER  
PLANT, ILLINOIS  
...BUY BEFORE REMOVAL  
AND SAVE!!

Bird 32' x 50', centrifuges, 316SS, contour (2)  
Walex 6" Extruder, 700 HP, 30:1 L/D (6)  
Walex 6" Extruder, 400 HP, 30:1 L/D (2)  
Conair 24" belt/filter, 40 HP (2)  
Rennberg 5', 25', 304 SS rot. hot air  
dryers, 10 HP, (3)  
Swaco & Keson 60" screens, SS (2)  
K-Tron 7000 lb./hr. twin screw volumetric  
feeder, 35, (6)  
Pfaudler 1,500 gal. 316L SS reactor, FV/  
180 gal. 5 HP agit. (2)  
Pfaudler 10,000 gal. 316L SS reactor, 150  
gal./FV int., 180 gal. lxt., hyd agit (4)  
Worth. Plent. engt. comp., 323 CFM @ 125 psf,  
75 HP, Model #4-BB-2 (2)  
17,000 gal. & 12,000 gal. 316 SS Tanks (3)

PHONE (IC-9) 287-1600

PERRY  
for  
Process  
Equipment

# PERRY

EQUIPMENT CO. INC.  
WORLD HEADQUARTERS...

Box "O", Hainesport, New Jersey 08036

Phone: (609) 267-1600 • Cable "PERI" • Telex 84-5307

## DRYERS

Blow Knex 5' x 40' 55 vac. dryer, 600 cu. ft.  
Blow Knex 36' x 20' vac. dryer 316L, 72 cu. ft.  
Blow Knex 65' x 36' vac. dryer, steel  
Metz 24" x 40" filter, chrome plated  
Sendik 24" x 24" 65 belt filter, UNUSED  
Sargent 60" x 88 conveyor dryer  
Blow Knex 32' x 90" dbl. drum  
Aeromatic #57-5 fluid bed dryer, 5/10 HP  
Witts 36" x 10' fluid bed, 88, annl.-cooler  
Rennberg 38" x 20' rotary dryer, 316 SS  
90" x 80' Louisville 55 rotary dryer  
10' x 100' GATX rot. alumin tube dryers, 140 gal. (4)  
Wyssmon 611-24 Turbo-tray dryer, 304SS

P.K. 6 cu. ft. vac. dryer, 304SS

Sharples #400 D-Center, 316SS, back drive

Sharples #500 D-Center, 316SS

Sharples #600 D-Center, 316SS, Decanter, 20 HP

Bird 12' x 30', 316SS, Decanter, 20 HP

Bird 18' x 42', 316SS, Decanter, 10/30

Bird 24' x 36', 316SS, Decanter, 304SS, contour-10

Bird 24' x 36', 316SS, Decanter, 316SS, contour (3)

Bird 24' x 60', 316SS, Decanter, 316SS, 125 HP

Bird 24' x 60', 316SS, Decanter, 304SS, carbide tiles, 1981, USED

Bird 32' x 60', 316SS, Decanter, Monel, contour (2)

Bird 32' x 60', 316SS, Decanter, 55

Delaval HX214-316 Decanter, 304SS, 20 HP (2)

Sharples AS15V "Super," 55

Sharples AS18V "Super," 55

Delaval HX213-316 Separators/Decanters (3)

Weeflate 8A14-076-3 316SS separator/desludgers (3)

Weeflate 8A



